

FARMER'S ADVOCATE

AND HOME JOURNAL

THE ONLY WEEKLY AGRICULTURAL PAPER IN WESTERN CANADA

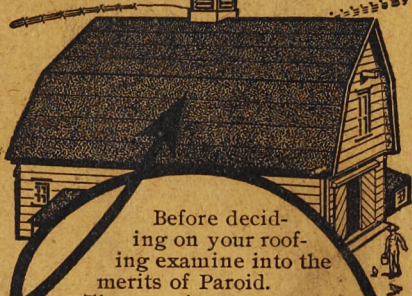
REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

Vol. XLV

WINNIPEG, CANADA, MAY 12, 1909

No. 868

BUILDING?



Before deciding on your roofing examine into the merits of Paroid. The superior "wear proof" water-proof solution with which our Paroid felt is saturated and coated positively insures a long wearing surface.

Paroid cannot dry out, crack or buckle. It will resist wind, water and fire. Will not taint rain water.

PAROID ROOFING

is easy to lay, is attractive. It will wear for years in any climate. Its use on Gov't buildings for years shows the approval of the Gov't's expert engineers. It has been used for years on factories and mills and by farmers and poultrymen everywhere.

OUR GUARANTEE: Buy PAROID ROOFING, apply it to your roof and then if you are not satisfied send us your name and address and we will send you a check for the full amount you have paid for the roofing, including the cost of applying it.

Write for sample of PAROID, also free booklet of plans entitled "Practical Farm Buildings" if about to build.

F. W. BIRD & SON,
Established 1817,
Dept 6+
HAMILTON, ONT.
Branch Office,
Winnipeg, Man.

When answering advertisements mention the Farmer's Advocate.

BICKMORE'S GALL CURE



The standard reliable remedy for Galls, Scratches, Cracks, Wire Cuts and all similar sores on animals. Sold by dealers everywhere. Money refunded if it fails. Sample and Bickmore's new horse book mailed for 6 cents. Write today. WINGATE CHEMICAL CO., LTD., Canadian Distributors, 545 NOTRE DAME ST., W. MONTREAL, CANADA

HIDES AND RAW FURS

Our returns to shippers are best advertisement we have. Make us a trial shipment and become a permanent customer.

WRITE FOR PRICE LIST

The Lightcap Hide & Fur Co.

P.O. BOX 1092

172-176 King St., WINNIPEG

Brighten Up



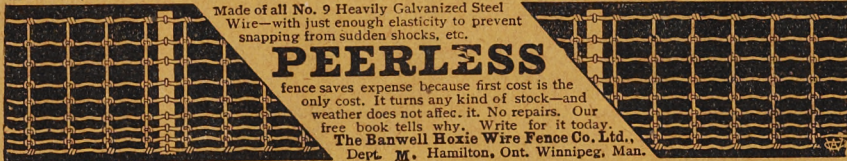
Before you invest in paint or varnish, investigate and find out which will last the longest, look the best and prove the most satisfactory all 'round. Ask the

local S-W. agent for facts and figures about

SHERWIN-WILLIAMS PAINTS AND VARNISHES

Made in Canada THE SHERWIN-WILLIAMS CO. Montreal, Toronto, Winnipeg

THE FENCE THAT SAVES EXPENSE



The Advocate is the best advertising medium

Twenty-five Years

of actual wear IS PROOF that FIRE, LIGHTNING, RUST, RAIN and SNOW has absolutely NO EFFECT on

"Eastlake" Steel Shingles

the kind of a ROOF you put on your house and they are the cheapest, being BEST and QUICK-EST, and last the longest. Send measurements of the roof and covering, and we will give you complete estimates.

"A 25-year guarantee vs. a 25-year test. I will leave it to you which is the 'safest.' I think actual proof is the best surety."

The Philosopher of Metal Town.

Metallic Roofing Co.

MANUFACTURERS LIMITED
TORONTO and WINNIPEG

WESTERN CANADA FACTORY:

797 Notre Dame Ave. WINNIPEG, MAN.

CHURCH BELLS

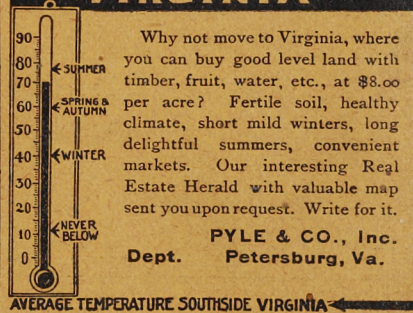
CHIMES AND PEALS

MEMORIAL BELLS A SPECIALTY
FULLY WARRANTED

McSHANE BELL FOUNDRY CO.,
BALTIMORE, Mo., U. S. A.
Established 1856



FARMS \$8 PER ACRE IN VIRGINIA AND UP



WHEAT PRICES ARE HIGH.

Ship your next car through us and get all there is in it. It pays to have your grain handled by a strictly commission firm.

WRITE FOR SHIPPING DIRECTIONS

Thompson, Sons & Company,

GRAIN COMMISSION MERCHANTS

703-B GRAIN EXCHANGE, WINNIPEG

The easiest way to prove a thing is to show it.

For years, we have advised farmers and their wives to let "bucket bowl" cream separators of all sorts alone—because they wash hard, rust easily, are easily damaged and wear out in consequence.

How do you like this solid dish pan full of disks? There is absolutely nothing in that pan but disks—just disks from the bottom up—and all from a "bucket bowl" machine a disgusted farmer and his over-worked wife discarded for a Sharples Dairy Tubular.

They got very tired of washing and drying it twice a day.

What's In The Other Pan?

That little piece in the other pan is the triple tinned, pressed steel, wear forever dividing wall used in the Sharples Dairy Tubular Cream Separator bowl. It is about like a napkin ring in size and shape, is just as easily washed, is instantly removable and is **absolutely all there is inside Sharples Dairy Tubular Cream Separator bowls.**

You'll never forget this picture. Every time you think of cream separators you'll

The Dish Pans Tell The Story



Will you wash one piece or a pan full? If you prefer one piece, then get a Sharples Dairy Tubular Cream Separator instead of a "bucket bowl" machine. Sharples Dairy Tubular bowls contain only one little piece, instantly removable and just like the single piece in the dish pan. All other separators are the "bucket bowl" kind—full of parts and works. The full dish pan contains the many disks used in one of the "bucket bowl" machines that are being discarded by the car load for Sharples Dairy Tubulars.

think of the difference between the Sharples Tubular and the "bucket bowl" kind—a difference in work, wear, efficiency and profits just as great as the difference in the contents of these two pans.

It is not surprising that Tubular sales exceed those of most, if not all, other separators combined. "Bucket bowl" sales are so reduced, by Tubular popularity, that some makers of "bucket bowl" separators resort to peddling in order to dispose of antiquated, cheaply-built machines that reliable dealers will not handle and farmers will certainly regret buying. What good is a peddler's guaranty? He's here today—gone tomorrow—and your money gone with him. What good is such a maker's guaranty? So little that reliable dealers refuse his goods—that's why he resorts to peddling.

The manufacture of Tubulars is one of Canada's leading industries. It is the world's greatest cream separator. It will give you greatest satisfaction—greatest profits—greatest wear. Get catalog No. 186

The Sharples Separator Co.
Toronto, Ont. Winnipeg, Man.

You cannot possibly have a better Cocoa than

EPPS'S

A delicious drink and a sustaining food. Fragrant, nutritious and economical. This excellent Cocoa maintains the system in robust health, and enables it to resist winter's extreme cold.

COCOA

Sold by Grocers and Storekeepers in ¼-lb. and ½-lb Tins.

When answering advertisements mention the Farmer's Advocate.

B. P. RICHARDSON

BARRISTER, SOLICITOR,
NOTARY PUBLIC.

GRENFELL, SASK

LANDS FOR SALE

HUDSON'S BAY COMPANY
The Great Traders of the Great West

LEASING OF LANDS

The company is prepared to lease for hay and grazing purposes all reserved quarters or half-sections. For particulars apply the Land Department, Hudson's Bay Company, Winnipeg.

Nothing else gives such life and staying quality to a roofing as Trinidad Lake asphalt.

Genasco Ready Roofing

is made of Trinidad Lake asphalt and gives lasting resistance to sun, air, rain, heat, cold, and fire. It is mighty important to know what your roofing is made of.

Be sure you see the Genasco trademark and get the roofing with a thirty-two-million-dollar guarantee. Mineral and smooth surface. Write for the Good Roof Guide Book and samples.

THE BARBER ASPHALT PAVING COMPANY



Largest producers of asphalt, and largest manufacturers of ready roofing in the world.

PHILADELPHIA

New York San Francisco Chicago

J. H. ASHDOWN, LTD., Winnipeg, Man.
CRANE Co., Vancouver, B. C.

BRITISH COLUMBIA EAST KOOTENAY IRRIGATED FRUIT LANDS

It is a well admitted fact that East Kootenay is slowly but surely becoming the Fruit garden of British Columbia. It has been demonstrated beyond a doubt that our fruit is second to none and yet our prices for fruit lands and terms of payment make it easy for the man with small means to get a good start on the road to wealth. Get here early before prices rise.

Write us for full information,

BEALE & ELWELL,

CRANBROOK, B. C.

SLOCAN PARK

BELOW IS GIVEN AN EXACT COPY OF A LETTER RECEIVED RECENTLY FROM TWO OF OUR FIRST SETTLERS AT SLOCAN PARK, WHEN IT WAS OPENED IN DECEMBER 1907. THESE TWO MEN OWN IN PARTNERSHIP THREE LOTS, THE BROTHER OF ONE WILL TAKE A FOURTH.

Slocan Park, Gutelius P. O., B. C.,
Sept. 15, 1908.

N. Wolverton, Esq.,
President, The Kootenay-Slocan Fruit Co.,
Ltd.
Nelson, B. C.

Dear Sir,

Now that we have had an opportunity of judging fairly as to the merits of land at Slocan Park, we thought possibly you might be desirous of our opinion. We cleared 4 acres last spring in as many weeks, and we are keeping as a souvenir the only stone we found on it. The fruit trees we planted, despite the exceptionally dry summer, are growing fine.

Mr. W. Roberts (a brother of Mr. L. Roberts), who is on a visit from England, is so favorably impressed with the possibilities, he has decided to buy a lot and make his home here. It would require to be a handsome advance on the price to induce us to part with the three lots we bought last year.

Thanking you for the fair treatment we have received at your hands,

Yours faithfully,
(Signed) Oldfield and Roberts

Write for maps and particulars.

The Kootenay-Slocan Fruit Co.

NELSON, B.C.

The Advocate is the Best Advertising Medium

It Costs Thousands of Dollars a Year

To Publish "The Farmer's Advocate and Home Journal" and Every Year the Expense Increases

Because we are continually improving the paper, paying large sums for articles on matters of vital interest and importance to farmers, thereby increasing its usefulness.

The present year will see still greater improvements, and its value to the up-to-date, progressive farmer will be greater than ever. No good farmer can afford to be without it.

WILL YOU HELP to increase the Big Family of FARMER'S ADVOCATE readers? Help to make your favorite paper still more valuable?

If your neighbor is not a subscriber induce him to become one. The FARMER'S ADVOCATE is a friend that is always working for your interests. It will do the same for your neighbor.

No other paper in Western Canada covers the ground so thoroughly. The FARMER'S ADVOCATE pays more for articles and contributions of practical worth than all its competitors combined. Point out this fact to your neighbor.

It is issued every week. It costs \$1.50 a Year or 3c. a week

See this list of Premiums and secure one or all of them by sending us one or more NEW subscriptions

Your Choice of Two Knives

(For ONE NEW Subscription in addition to your own.)

These are the genuine Joseph Roger, two bladed. The large one measures, with large blade open, 6½ inches. The smaller one measures 5½ inches. This is an extra quality penknife, suitable for either lady or gentlemen. Both these knives are splendid value.

A Razor

(For THREE NEW subscribers and your own renewal.)

A Carbo-Magnetic razor of the best steel; costs in the ordinary way, \$2.50. A delighted subscriber in Alberta says: "I have a good razor that I have used for 22 years, and thought I had the best in the market, but the FARMER'S ADVOCATE razor is a little the smoothest I ever used, and I take pleasure in recommending it to others."

Choice of Two Watches

(For THREE NEW Subscribers.)

Nickel case, open face, seven jewel, stem wind, stem set watch, gentleman's size.

(For FOUR NEW subscribers.)

A lady's silver watch, handsomely engraved, open face, fancy illuminated dial, stem wind, pendant set, a splendid timekeeper.

"Carmichael"

(For TWO NEW subscribers and your own renewal.)

A Canadian Farm Story, by Anison North, bound in cloth and finely illustrated. The story is a real picture of Canadian rural life. No other writer of Canadian fiction has ever drawn so true a pen picture. The Toronto World says: "It is a book that should be in the homes of all the people."

An Atlas

(For ONE NEW subscriber and your own renewal.)

Contains 16 maps of the greatest divisions in the world, with names of cities and their population. Map of Western Canada showing new railway lines. Should be in every home where there are school children.

The Blue Ribbon Cook Book

(For ONE NEW subscriber and your own renewal.)

This book is the best of the kind ever published. 154 pages, 850 valuable recipes, 6 pages of useful tables. Every recipe is of practical value, and the cook's convenience has been kept in mind throughout the book. Ingredients are given by measure, the cup being the standard instead of by weight, as many housekeepers do not possess accurate scales. The time needed to cook the different dishes is given, also a number of convenient tables and other useful general information will be found in its pages.

Just the book for the bachelor homesteader.

If you want the cook book for your own renewal only, send \$1.75

Microscope

With strong magnifying lens Useful for examining weed and other seeds, insects or other small objects. TWO MICROSCOPES for ONE NEW SUBSCRIBER AND YOUR OWN RENEWAL.

Bibles

(Bagster's) one of the best of our premiums. Handsomely and well bound; convenient size. For TWO NEW SUBSCRIBERS AND YOUR OWN RENEWAL.

Baron's Pride

(For ONE NEW subscriber and your own renewal.)

A handsome picture of the champion Clydesdale sire, size 17 x 13. Suitable for framing Regular sale price of this picture, 50 cents Hundreds have been mailed to subscribers during the past couple of months.

Your Own Subscription Free

IF YOU SEND US TWO NEW NAMES AND \$3.00 TO COVER SAME (EACH NEW SUBSCRIBER PAYING \$1.50), WE WILL MARK DATE ON YOUR PAPER FORWARD ONE YEAR AS REMUNERATION TO YOU; OR, FOR EACH SINGLE NEW NAME, ACCOMPANIED BY \$1.50, WE WILL ADVANCE THE DATE OF YOUR ADDRESS LABEL SIX MONTHS. CASH COMMISSIONS OR PREMIUMS, AS PREFERRED, FOR LARGER LISTS OF NEW NAMES.

IN CLUBS OF FOUR RENEWALS OR OVER WE WILL ACCEPT \$1.25 EACH.
NO PREMIUMS INCLUDED IN CLUB OFFERS.

Remember

These premiums are given only to our present subscribers for sending us bona-fide new yearly subscribers at \$1.50 each.

Good terms to a few good agents.

Farmer's Advocate of Winnipeg Ltd.
Winnipeg, Manitoba

NOW YOU SEE IT AND NOW—YOU DON'T

The \$5.00 or \$10.00 which assumed enormous proportions when looked at in the light of a saving on the first cost of a cream separator are quickly lost sight of when the cheap machine and its results in actual use are compared with

The DE LAVAL Separator

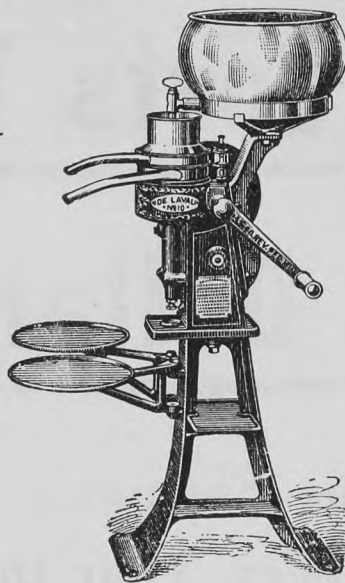
Lasts a lifetime and the qualities which satisfy are doing business long after price is forgotten.

The De Laval Separator Co.

MONTREAL

WINNIPEG

VANCOUVER



DOMINION SHELLS

DUPONT SMOKELESS

PERFECT AMMUNITION

For Trap and Field Shooters

SPECIFY

IMPERIAL OR SOVEREIGN
SHELLS

AND GET THE BEST

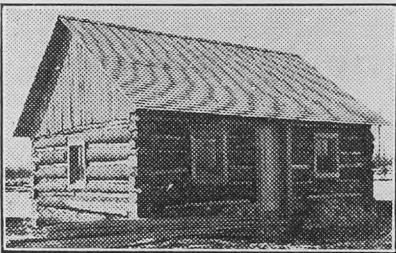
Loaded by the
Dominion Cartridge Co., Ltd.
Montreal, Canada

Wisconsin, U.S.A. is the State

Where the people are progressive, independent, intelligent and prosperous.

VILAS COUNTY, WISCONSIN

offers great opportunities for the man of moderate means who wants to make a home for himself; for the laborer in the city who wants to get out to the free and open country and become independent and prosperous; for the farmer who is renting a high-priced farm and is tired of giving most of his earnings to the owner; for the farmer's boy who wants a place of his own; for the investor who wants a safe and sure profit on his investment; for the family who wants a summer home near the beautiful Eagle Waters, a chain of twenty-five pretty lakes extending over fifty miles in length.



WE ARE NOW BUILDING HOUSES

for those who buy land of us—good substantial log structures, 16x22 feet, roofed, floored, chinked and plastered, so that a man can move his family right up and start farming at once. House and 80 acres for \$1000, small cash payment and balance to suit.

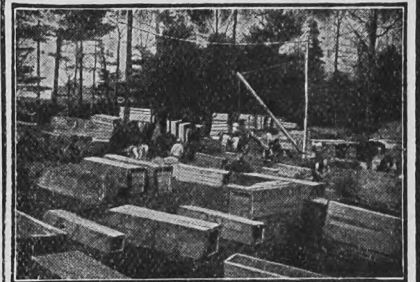
We will sell 40 acre farms for \$10 down and \$10 a month—no interest, no taxes, and if buyer dies before payments are completed, we give the farm free to his family.

Make your plans to go to Eagle River, Vilas County, on the Chicago & Northwestern Railroad and see for yourself what we have and what we are doing there. Our representatives will meet you and take you right out to any piece of land you want to see and we will pay car fare from any point within 500 miles, if you buy land.

Vilas County, Wisconsin, has been proven good land for farming, dairying and stock raising. Fertile soil, invigorating climate, adequate drainage, active ready markets, good roads, near to railroad, schools and churches.

The price of this land ranges from \$8 to \$15 an acre.
Call or write for map and book and full particulars.

Dept. 25 G. F. Sanborn Company, 181 La Salle St., Chicago, Ill.



PACKING TREES AT PELLHAM'S NURSERY FOR WESTERN TRADE.

Reliable Agents Wanted

Now to sell Fruit Trees, Forest Seedlings, Berry Bushes, Flowering Shrubs. Good pay weekly. Outfit free. Exclusive territory.

600 ACRES UNDER CULTIVATION

We grow Exclusively for our Western trade varieties we guarantee hardy and recommended by Indian Head and Brandon experimental farms.

We supply large and well developed trees and plants which will withstand severe cold. Write for terms. State whether you can work whole or part time.

Address—Promotion Dept.

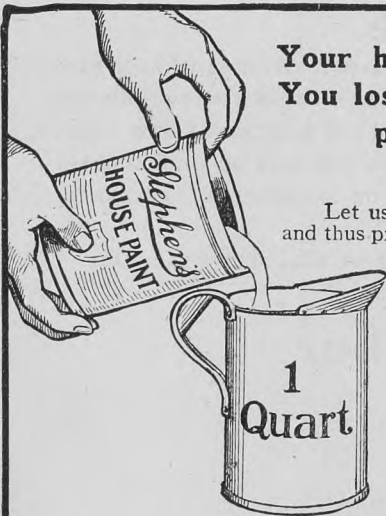
PELHAM NURSERY CO.

Gooderham Building

TORONTO, ONT.

The Farmer's Library

We are satisfied that we have the most complete library of Farm Books desirable and would like you to glance over our list. Also note Premium Offers. Send at once.



Your house or barn needs painting.
You lose money in the value of your property every day you leave them unpainted.

Let us tell you how little it will cost you to paint, and thus properly protect your house or barn. We ask you to send us their measurements and we will give you an expert estimate. You will find when you see how low this cost will be, that it is not economy at all to let them go unpainted, exposed to rain and climatic changes.

We will tell you also why it is wise to do your painting with Stephens Paints—paints made by *Western Paint Specialists* with twenty-seven years' experience—paints that combine the exact amount of Manitoba Linseed oil (acclimatized), with the exact amount of pure pigment required to withstand both the blistering heat of 100 degrees and the cracking cold of 40 below.

You will show your wisdom when you protect your buildings with Stephens Paint—"the Paint with the long life."

Write for interesting free booklet No. 15 and color cards.

Progressive hardware dealers will fill your orders.

G. F. STEPHENS & CO., LIMITED, WINNIPEG, CANADA.

PAINT AND VARNISH MAKERS.



**Stephens
PAINT**

SYNOPSIS OF CANADIAN NORTHWEST LAND REGULATIONS

ANY person who is the sole head of a family or any male over 18 years old, may homestead a quarter section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-Agency for the district. Entry by proxy may be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties.—Six months residence upon, and cultivation of, the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.

In certain districts, a homesteader in good standing may pre-empt a quarter section alongside his homestead. Price \$3.00 per acre.

Duties.—Must reside six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may take a purchased homestead in certain districts. Price \$3.00 per acre. Duties.—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.

W. W. CORY,

Deputy of the Minister of the Interior.

N.B.—Unauthorized publication of this advertisement will not be paid for

SEED OATS

LINCOLN WAVERLEY 65c. per bus. F. O. B. Birtle
grown on breaking, no wild oats, true to name, cleaned ready.

DANISH 50c. per bus. from backsetting, not on island account occasional black oat cleaned and not guaranteed, otherwise a splendid seed for main crop, true to name, large plump kernel, grade No. 1 white, bags extra.

COLTART & ORR, Beulah, Man.

Farmer's Advocate

and Home Journal

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

Vol. XLV.

Winnipeg, Canada, May 12, 1909

No. 868

FARMER'S ADVOCATE AND HOME JOURNAL

ESTABLISHED 1866.

Canada's Foremost Agricultural Journal
Published Every Wednesday.

SUBSCRIPTION PRICE

Canada and Great Britain, per annum, in advance \$1.50
" " " " " (if in arrears) 2.00
United States and Foreign countries, in advance 2.50
Date on label shows time subscription expires.

In accordance with the law, the FARMER'S ADVOCATE is sent to all subscribers until an explicit order is received for its discontinuance, accompanied by payment of all arrearages.

British Agency, W. W. Chapman, Mowbray House, Norfolk St., London, W. C. England.

Specimen copies mailed free. Agents wanted.

Address all communications to the firm, not to any individual.

FARMER'S ADVOCATE

OF WINNIPEG, LIMITED.

14-16 PRINCESS STREET

WINNIPEG, MAN.

EDITORIAL

If any of the stockmen contemplate seriously the possibility of war with Germany let them try to imagine John A. Turner and Paul M. Bredt engaged in a pitch fork duel.

Opportunity of Spring

When we think of it, it is surprising how much of the convenience and comfort, not to say profit in farming, depends upon what we get done during the six to eight weeks of spring. Most of all, we are concerned to get the field crops seeded, and in doing this often neglect many smaller jobs that if done would afford an incredible degree of satisfaction throughout the whole year.

Take some instances. The garden requires attention just as soon as the land is fit to work, but if men and teams are kept on the fields from Monday morning until Saturday night, the chances of having fresh vegetables, early new potatoes, and fruits throughout the rest of the year are about all gone. True a garden can be made after seeding but it is not the same good garden that one has by giving the soil early attention. Why is it not possible to give an afternoon to the garden with the plow and harrows? But merely putting a little time on the garden is not all that might be done with advantage. Nearly every house and barn in the West would be improved with the planting of more trees, and the setting out of bush and cane fruits. These are things that have to be planned for ahead. It is no use waiting until spring arrives and the ground is fit before anything is done. The start should be made in June by breaking up the sod and continued in the fall by backsetting, then followed up in the winter by ordering the stock to be planted and the fencing material to protect it. But if all

these preparations are neglected the opportunity of planting in the spring when nature is ready to lend her hand to start growth is of no value.

When a man sees the hot summer days drag by without fresh vegetables and fruits, he not only regrets the missing of the opportunity of having a garden to draw from, but generally resolves that he will be provided for next season. Alas for good resolutions! Farming is not all simply growing crops. There is a responsibility to oneself and family and each spring the opportunity to discharge it is offered and availed of or neglected as the case may be.

Side Line Crops

It is scarcely necessary to call attention to Professor Bedford's article on another page of this issue upon the growing of our less important field crops. But as there is always a large amount of land that lies idle during summer, on account of not being considered suitable for wheat, oats or barley, it is worth while to emphasize the advantages of growing such crops as peas, rye, emmer and flax. Each of these crops has some peculiar characteristic that makes it suitable under certain circumstances for particular conditions of soil. We are coming to a time now when we cannot so well afford to leave land idle as we could when \$25 an acre was considered a high valuation for our best soils. It is becoming more and more necessary to get the most out of land of which it is capable, and also to keep the most in our soil of which we are capable.

If we were asked to name some farm practise out of the common run that promised something a little better in return than the average crop gives we would say grow clean flax seed. During the past winter we heard more enquiries for clean flax seed than for any other class of grain unless it was wheat, and everyone wants wheat. Flax reaches a fairly good figure for commercial purposes, but for seed it is difficult to say how much might be got for a pure article.

A hint is dropped in Mr. Bedford's article about growing peas for seed. Has anyone ever attempted to work up a trade in growing peas for seed merchants and for the trade which supplies the restaurants with peas for soup? In this direction we believe there is a side line that can be followed with profit. There are exceptional advantages for growing peas in the West, and it should be worth while exploiting them.

In connection with what Mr. Bedford says about rye it might be remarked that harness makers pay from six to ten dollars a ton for clean rye straw, and this probably accounts for a large proportion of the acreage in Manitoba. With a revenue from both straw and grain even the poorest farmer on the poorest land can manage to get something for his work.

A Dollar a Steer and a Slow Train

While a good many suggestions relative to the improvement of conditions in the cattle trade have been made, and some of them are being pushed for adoption by different interests, it seems to us that enough is not being done to secure a faster service for trains of live-stock. The nature of our live-stock trade, the fact of our markets being so far from the points of production makes it all the more necessary that in the marketing of grass-fed cattle, particularly, a better service than is given ranchers in any other part of America be put on by the C. P. R. True, as compared with other roads the C. P. R. has nothing to be ashamed of, but in the matter of live-stock shipments the actions of other roads should not be the standards of service. Rather the fastest service of which the road is capable should be the aim of all concerned.

In matters of this kind the C. P. R. is notably ahead of practically all other systems, but we believe if stock shippers and ranchers would get together in conference with the railroad officials and the actual advantage of a faster service calmly considered, stock trains run on local passenger train time schedules would be the result.

In the past it has been claimed that stock trains cannot be run faster than the time they now run on, and that it would not be safe to run at express train rates with heavy trains of live-stock, but the unanimous opinion of shippers and attendants is that if stock trains were classed as passenger trains and were not held up so long at sidings waiting for other freight, the average rate of movement might easily be doubled. In other words, on a run from Alberta to Winnipeg, or Montreal, nearly half the time is taken up with stops.

A steer's time is not supposed to be worth anything, but when a steer is losing around twenty pounds a day of flesh that sells in the Old Country for from 10 cents to 14 cents a pound, it is not hard to calculate how much a day that steer's time is worth to the shipper, but the unfortunate feature of the case is that no one gains by what the steer loses. It is a complete waste. Estimate what it means to have a train load of 30 cars, 24 hours longer in transit than is absolutely necessary allowing only 10 pounds loss per steer per day with 16 to the car, and 6 cents per pound for the loss. On the train load the daily loss would be \$576, and this, as every one knows, is not a large shrink. For the 90,000 cattle exported last year the loss on the same basis amounted to \$108,000 per day. Putting the situation the other way around every day saved would be a gain of \$576 on each 30 cars or \$108,000 on all the export cattle. Money can be made easier in very few undertakings.

HORSE

"Scotland Yet" lectures Canadian horsemen on their registration rules and regulations respecting the importance of Clydesdales. Mr. Tom Rawlinson then turns to "Scotland Yet" to remind him that he misrepresents the Shires. Another Alberta horseman censures the secretary of the Scottish Clydesdale Horse Society for attempting to supply the public with misinformation on Suffolks. When will our experts know it all?

* * *

Now that the foaling season is at hand, every breeder who has even but a single brood mare should provide himself with a rubber-bulb syringe. The foal should be watched carefully and if there is difficulty in expelling the faeces an injection per rectum of a half-pint of blood-warm water should be given. A tablespoonful of glycerine mixed with the water will prove beneficial. If the bowels are not evacuated in half an hour repeat the injection and continue at intervals until there is a movement. Many foals die every year from a lack of attention in this direction. The remedy is simple, inexpensive and harmless.

Premium Pictures of Great Horses

The demand for the pictures of the Clydesdale sires Baron's Pride, Hiawatha, and Oyama has completely exhausted our first supply, but a new consignment is about ready. Horsemen find it a pleasure to accept subscriptions from their friends for a paper like the FARMER'S ADVOCATE and the pictures they get for the service are suitable and appreciated. Several have sent one new name and have now part of the series, another subscription will secure the three.

The rules are two new names (not the sender's) for the three pictures or one new name at \$1.50 each for any two pictures. When a new subscriber sends his own name it does not entitle him to a premium.

Racing in the West

Unusual interest promises to develop in the West, in harness racing and running during the present year. Towns all over the prairies and in British Columbia that have not previously given much attention to horse racing, small places most of them, are organizing turf clubs, laying out tracks and preparing for meets some time during the summer. Turf clubs have been formed recently at Millarville, Alta., and Stoughton, Sask., and most of the previously organized clubs in other towns have manifested renewal of interest in the greatest of all sports, by the holding of annual meetings, election of officers and pre-

paration generally, for the season's sport. In British Columbia the season promises to be an eventful one. At Victoria a turf club has been organized, and a track laid out on which 60 days of racing, running mostly, will be held this summer.

In the Manitoba Circuit, which opens at Brandon on May 24th with a three day's meet, purses are offered aggregating \$60,000.

The Queen of Pacers Again in Racing Form

The Broncho, the Winnipeg owned pacing mare with a mark of 2.00 $\frac{3}{4}$ will appear on the track again in a few days for the first time since her retirement in the spring of 1907. She is in training at Palatine, Illinois, under the management of Charlie Dean, and is entered for the principal meets of the Grand Circuit. Her first appearance will be in the Wolverine handicap, at Detroit, a free-for-all pacer event worth \$3,000.

It was a serious lameness that threw the Broncho out of training in the fall of 1906, just when she was at the height of her fame and in the most transcendent form, and lameness of a most baffling nature. There was no visible or findable cause for it, her limbs and feet showing no telltale trace. And, apparently, after a few months of rest she was again sound, but again she went amiss in the spring of 1907, and before she had had any really strenuous training. So it was decided that the only hope for her was to give her a long and complete rest. Consequently she was bred and last season spent her time in mothering a lusty colt. But before it was weaned she was once more put at jog work, and ever since has been undergoing the preliminaries of another preparation for the races. Thus far she has given the most encouraging possible account of herself. Her legs look like steel and whip cord and she has not taken a lame step for considerably over a year. Late last fall, after the campaign was over and Dean was back home for the winter, he started her up once or twice for a little piece only and she acted as if she could run away on the pace in her old-time fashion. Just now she is as hard as iron, and every indication is that she will train absolutely sound. At the time she went lame she was unquestionably good for a mile in 2.00 or better, while as a racing machine it is conceded that nothing like her has ever been seen. Despite all the racing phenomena that have been doing astonishing things since she went into retirement her world's record for three consecutive heats in a race—2.03, 2.03 $\frac{1}{4}$ and 2.02 $\frac{1}{4}$ —made at Cleveland, has not been equaled or beaten. If she can be brought back to the form that she was then in, that she will once more be depended upon to do some remarkable things is certain. That Dean is confident of bringing her back to it is shown by the events for which the mare has been entered for during the present racing season.

Digestive Trouble in Horses

According to the report of the Director-General of the Veterinary Service of the British army, one out of every 200 horses in the home army died, in the hospital last year, from disorders of the digestive systems. This is a heavy death percentage, remarks the London Live Stock Journal, and if this is the condition in the army, where the feeding and care of horses has been reduced almost to a science, what must be the sickness and loss from this source among horses owned by private individuals?

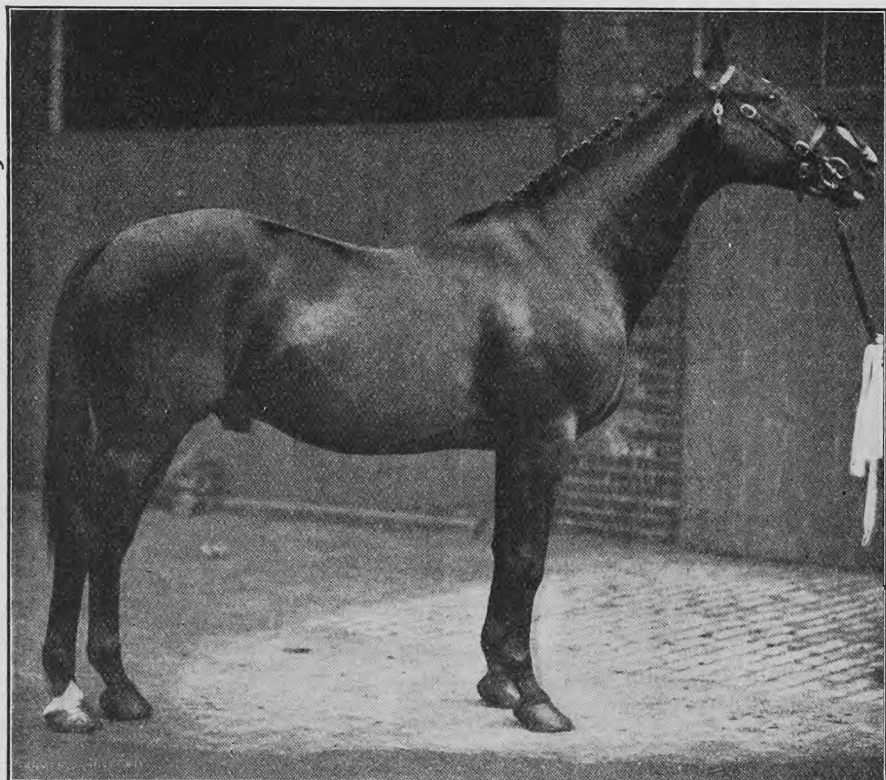
Improper feeding produces much digestive sickness in horses, and a horse with an acute attack of indigestion is in the utmost need of veterinary help. There is not much use in pouring medicine into the stomach. As that organ is in a deranged condition, no assimilation of anything put into the stomach takes place, and consequently no action is obtained by administering drugs through the mouth. The injection of concentrated medicines under the skin is the only rational way of treating such cases. No ordinary owner or farmer has either the instruments or skill to do this. But he can, and should, place the sick animal in a big box stall, plentifully supplied with bedding, and with a careful man with him to prevent, as far as possible, the horse from injuring himself when the pains are very intense. Many a horse suffering great pain from indigestion has thrown himself down violently on a hard floor and burst the stomach (which in this disorder is distended with gas) and thus destroyed whatever chance there might have been of successful treatment. It always gives some relief in cases where there is great abdominal pain to take hot cloths, wrung out of a pot of hot water, and applied as hot as the patient will stand, to the lower part of the belly. This is usually easily done, as the animal is in almost every case lying down, and in many cases lying on his back. Much can be done in this way to keep the horse from injuring himself and also to give relief, till veterinary help can be obtained.

Feed for a Growing Colt

An Alberta correspondent writes: "I have a Percheron stallion that is two years old in June I would like to know what to feed him and how much to feed him, and how many times a day. I would like to make him a big horse and not hurt him. Should I water him before feeding? I have a box stall and lots of good oats and bran, and also a lot of good hay."

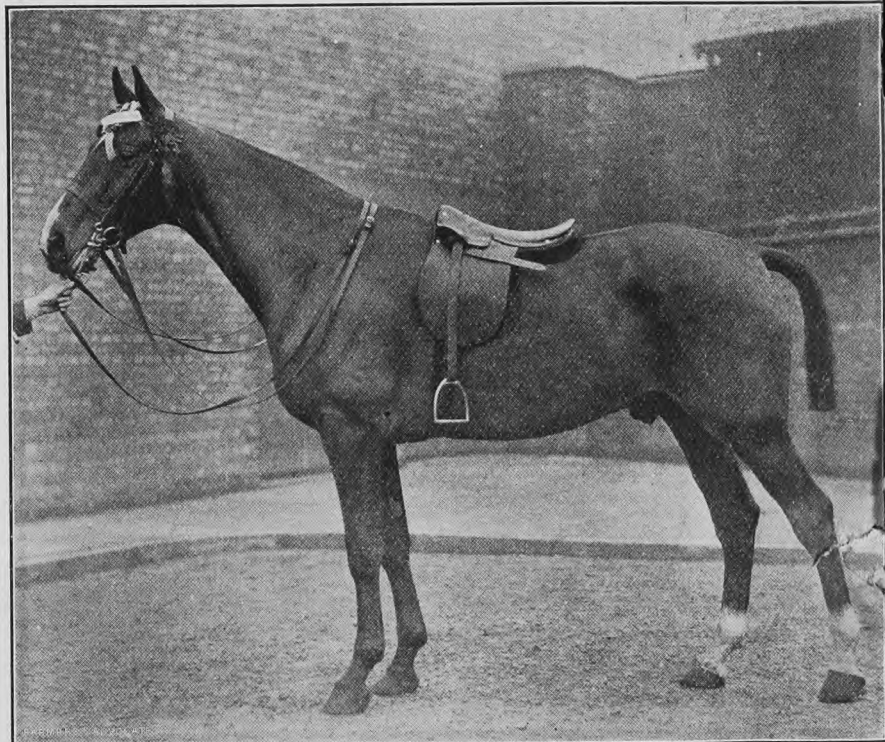
"I would also like to know what to put on his mane to stop him from scratching it. He is wearing it off in places and it is so short I cannot brush it."

The question our correspondent raises, directs attention to an important point in raising young horses. It is too frequently the case that in an anxiety to make a colt grow into a big horse he is



MERRY MATCHMAKER.

Thoroughbred Stallion winner at Hunter Show, London Eng., 1909.



SIGNAL

Hunter bred Stallion, not Thoroughbred, champion Hunter Show, London Eng., 1909

kept too fat or "fed off his feet." A growing horse should be kept in "growing condition." Just what this condition is, is hard to describe but everyone who has fed stock knows what it is. In some horses "growing condition" means ribs covered an inch thick and in others the ribs are just concealed out of sight. But in any horse the skin should be pliable, the hair soft, the digestion normal and all the functions working naturally.

In order to have the functions in a natural normal state a colt must be treated as a colt, not as a stuffed specimen at a circus. He should have an opportunity to take all the exercise his system demands and this will be more if he is not over fat than if he carries a lot of flesh. Never keep a colt in his stall day after day with only an hour or two for outdoor exercise. His digestive system will become clogged, he will lose ambition, his muscles will get soft and he will be in a fair way to become useless.

When a colt has been given a chance to stretch his muscles and to keep his appetite active with sufficient to satisfy it without making a lot of flesh nothing more can be done to force growth. If he is fed more and loaded with fat with the idea of making a big horse of him because he weighs heavy at so many months, the chances are that the extra weight will spring his joints out of shape, stock his legs and probably set up "grease."

The size to which a colt will attain as a mature horse is very largely determined by his parents. His inherent tendency—the great factor in fixing his ultimate limits, but these tendencies may be assisted or hindered by care and feeding, and it is just as easy to kill a colt with kindness as with neglect. Therefore take into consideration his natural tendencies, feed carefully and plentifully, give him fresh air and an opportunity to use his muscles.

A colt that has been kept fat from weaning and fed heavy with the idea of making a big horse of him will no doubt mature earlier than if he had been given a natural colthood, but he will be softer and the chances are he will not live as long as he would otherwise. Horsemen are often too anxious to have their yearlings and two-year-olds look as finished as four-year-olds.

The case of our correspondent is a particular instance and it is always hard to speak authoritatively upon special cases without having seen them. But, as a breed, the Percherons are quite heavy feeders, and as a rule, their owners stuff them too much for their good, especially if they are to be offered for sale as two-year-olds.

The materials for feeding this colt are all that is actually required but probably are a little "strong" for a growing colt. If he could get some green oat sheaf instead of hay, or some good oat straw, he would keep his system cooler. From now on he will be able to get grass to take the place of hay. If the grass is fairly good he will do well on it alone, then when it begins to fail give him from a quart to two quarts of oats a day. If he is not to be turned on the grass give him a big corral to run in, what hay he will eat clean in an hour and night and morning, and a little at noon, and about a quart of oats and a quart of bran three times a day. This will serve as a basis, but, if he seems to need more, increase it a little. It is hardly likely he will leave any. Let him have salt and water him before feeding. In fact, always water horses before feeding. If this colt is inclined to be harsh in the skin, in the fall or winter give him about a pint of flaxseed once a day for awhile, and by next fall have some oat sheaf for him as it is not so heating and constipating as is hay.

For itchy neck, or tail, first get the digestive organs working easily by use of bran mash and flaxseed, then mix about one-half a glass of coal oil in a pint bottle with water, shake well and rub into the part. This may require to be repeated in three or four days. If the rubbing is simply a habit, which is sometimes the case remove the opportunity to rub. It is quite probable though that he has lice. Another good wash is soft soap with an ounce of creolin to the pound used with soft water.

* * *

Concrete should not be exposed to the sun until after it has been allowed to set for five or six days. Each day during that period the concrete should be wet down by sprinkling water on it, both in the morning and afternoon. This is done so that the concrete on the outside will not dry out much faster than the concrete in the center of the mass, and should be carried out carefully, especially during the hot summer months. Old canvas, sheeting, burlap, etc., placed so as to hang an inch or so away from the face of the concrete will do very well as a protection. Wet this as well as the concrete.

STOCK

Comment upon Live-Stock Subjects Invited.

Goitre in Lambs

A correspondent writes that his lambs are coming with thick glands in the throat and live only a few hours. Others were not so bad and got well in a few days. The ewes were fed on hay and oats and allowed to run out on fine days.

From this description it appears that the lambs have goitre of which the author of "Modern Sheep" says:

Goitre seems to be one of those mysterious, insidious maladies that has long and successfully baffled scientists so far as its cause is concerned. Sheep of all ages are subject to this trouble, but young lambs more especially so. It seems to be more prevalent in some seasons than in others. Sometimes the greater part of the lamb

straw and a moderate allowance of roots, and their drinking water was from the same spring as supplied the Shropshire flock. Now, while not a goitered lamb made its appearance in the grade flock fully 50 per cent. of the Shropshire lambs died of goitre without ever gaining their feet. The next year this same Shropshire flock, under similar treatment to that given to the grade flock, gave pretty close to a 150 per cent. increase with only one case of goitre to record.

My experience tends but little to encourage a belief that the water the sheep drink has much to do with goitre, although it is well known that the human race acquires goitrous troubles in certain sections through the water it drinks. Especially is this true of Derbyshire, England, where people attacked with goitre are said to have "Derby Neck." Where sheep have unlimited exercise and have to work a little for their living, as it were, goitred lambs are generally conspicuous by their absence. Goitre is very readily cured in full grown sheep, but not so easily with the young lamb, as its constitution is not sufficiently strong to undergo the severe



Aberdeen-Angus bull, "Golden Glean," at the head of Glencarnock herd. Property of J. D. McGregor, Brandon. The following is his show record:

As a yearling, 1907.

1st at the Iowa State Fair.
2nd at the Minnesota State Fair.
1st at the Wisconsin State Fair.
2nd at the Inter State Live Stock Show, St. Joseph, Mo.
2nd at the Missouri State Fair.
2nd at the Royal Show, Kansas City.
1st at the International Stock Show, Chicago.
1st at the Illinois State Fair.

As a two-year-old, 1908.

1st at the Iowa State Fair.
1st at the Minnesota State Fair.
2nd at the Wisconsin State Fair.
1st at the Inter State Live Stock Show at St. Joseph.
1st at the Illinois State Fair.
1st at the Missouri State Fair.
1st at the Royal Show, Kansas City.
2nd at the International, Chicago.

crop is lost or severely damaged by this disease. Many reasons have been advanced for the prevalence of goitre among new born lambs. Insufficient exercise, an excessive fat condition of the ewe, the use of highly-fitted show rams which have been improperly reduced from showyard condition to breeding condition, inbreeding and the drinking water are among them. The writer believes that the trouble is due more to insufficient exercise and to high feeding than to any other cause. A few years ago I had charge of a large flock of Shropshires, which to all appearance were in fine breeding condition; that is, if full flesh and good condition of the ewe is any criterion. All were bred to imported prize-winning rams, and their rations consisted of roots, clover, bran and oats, to which was added just previous to lambing a small quantity of oil cake. The promise of a strong lamb crop was met with a large proportion of fat swollen-necked, hoofless and almost boneless freaks, covered with a thin covering of hair rather than the natural growth of wool. These prodigies generally squirmed and struggled around for a few hours in their endeavor to gain their feet, which in only very rare instances did they succeed in doing, and then died. On the same farm was kept a large flock of well-bred grade ewes, which carried in a very marked degree the blood of the Leicester. They were bred to high-class Shropshire rams; their rations consisted of clover hay, oat straw, pea

treatment necessary for the destruction of the growth. In the treatment of strong animals suffering with this trouble the cure is, cut into the growth quite deeply and just as soon as it has stopped bleeding inject with a small syringe a small quantity of full strength tincture of iodine. The enlargement should also be painted with iodine at regular intervals, say once in two days.

The Centre of Live-Stock Industry in Manitoba

COMMENTS ON THE WINTER FAIR

Like many another Western Manitoba farmer I found myself in the city of Brandon, in March, to attend the winter fair and there I got some impressions that I would like to pass on to my fellow farmers.

Being one of those unfortunate human beings who somehow got the idea ingrained into his system in early youth that to farm, decently and in order, one must keep cattle, sheep, hogs, poultry, etc., I naturally took a look into the cattle end to see what they had, and I was delighted to see a few splendid specimens and to have the liberty of handling them all over, no one being around to prevent me from doing so. After having examined McGregor's Blacks, and "Jimmy" Yule's roans, and placing the championship where it should go, I began to wonder where all the people who were jostling me at the ticket office had gone to, so I set out to explore and as soon as I had got to the horse department I came to the con-

clusion that neither McGregor's ox or Yule's cow would get the championship, but that at this winter fair horse was king, and that horse the Clyde. The light horse tries to satisfy the people who sit in the gallery, and to a certain extent succeeds. The Percheron also has a certain following, but I noticed they were distinguished as the black, the grey, the dark grey, the big fellow, the fellow with the turned in toes, and the one with the white specks on his shoulders, etc. After looking them over I concluded that the Clydes will have to hustle to keep out of the way of the Percherons. I got a seat amongst what I thought were a pretty good bunch of horsemen, and after a bit the Clydes began to stream in. What an exhibition! No more black, grey, etc., but—that is Van Horne's "Lord Ardwell," that "Pleasant Prince," this is "Silver Plate," "Black Ivory" or "Chamberlain Joe," and the younger classes seemed to be quite as familiar, "Baron Shapely," "Baron of Arcola," "Morpheus," "First Baron." The chief interest in the younger classes seemed to hover round the produce of former champions. Some of these made a good showing and were only turned down by some of Scotland's best and latest productions. The colts of Woodend Gartly and Concord coming well up, while the get of some of the other 'one time prize-winners' showed far down the line where they properly belonged. But I began to grow weary of horse, horse, horse, and made my way upstairs through the seed grain division and inspected the different varieties. One is almost forced to the conclusion that Red Fife wheat holds the same place amongst the wheats that the Clyde does amongst horses, and the Shorthorn does amongst cattle, and the same thing holds as to the permanency of that position. It will have to hustle to hold it, people will follow a fad for a while but utility will win out in the end. But if we can get a wheat that will yield as well, weigh as well, sell as well, and mature five to ten days earlier, then good-bye Red Fife, sorry to part with you, you have done so much for me.

In the poultry department everything was just as animated as in the horse ring, giving one the impression that the whole world had gone live-stock crazy. Facts were being forced upon me and I had to get them straight in my mind. Only a few years ago it was nip and tuck with the breed societies to keep alive, good stock horses were being sold for from \$300 to \$500, importations had all but ceased, good brood mares were selling for \$75 and bigger ones, with long pedigrees, as good as anything in the show went begging at \$250. Then when the sale came on, after the show, things were reversed. One man put four or five head into the sale, including two nice heifers and a strong three-year-old and did not receive a single bid. Another good heifer sold for \$75 that was worth \$80 for beef. Brandon butchers apparently do not need to pay for heifer beef! and so long as we farmers will submit to it, so long will our butchers buy at rock bottom kill-the-trade prices, and sell for "all the traffic will bear." The well-to-do people may have no reason to complain, everything in the local shops is put up at ten cents per pound, and the poorer people who buy on credit are glad to take the poorer cuts, while the others who pay cash have no complaint at ten cents for the best. So those who have most reason to complain cannot, and what would be the use?

As for the bulls, some got no bids and others got bids that seemed almost extravagant. The high priced bulls apparently could not bring their value in a land of 2½ cent beef, they are worth more in countries where there are markets worthy of the name. Why were there no bids on the others? Well, it seems as if buyer and seller never would take each other seriously in Manitoba when it comes to an auction of cattle. One would think that if a cattle sale is, from year to year, a failure from the seller's standpoint it would naturally be a success from the buyer's standpoint, and one would expect to see buyers on the increase. Evidently a sale at the time of the winter fair should be held earlier in the week, say two hours on Thursday, and if everything is not sold open again on Friday. It is simply courting failure to put on a sale after so many had gone home and when those who wanted to buy or sell would have to remain over Sunday. The breed associations should leave off wrangling as to whether a director lives east of Portage or west of it. They should make the auction sale a success. This could be done by 20 or more breeders clubbing together and agreeing to put in one animal each that they would be willing to sell for what it would bring, insist upon a certain standard and if one man's stuff went cheap he could get even by buying another's that would not go much higher and at least have an exchange of blood to take home. If one breeder does not show confidence enough in another's animal to put a decent bid on it, how can I expect a bid on my own? Then arrangements might be made for a line of credit on the higher priced animals. Breeders should be prepared to give as good terms at a sale as they give in their own yards, then the sales will become popular.

Brandon citizens are enterprising. They have built a splendid city out of the colony of tents that many of us saw in the 70's, they have brought their summer fair to magnificent proportions, the winter fair has sprung into a robust existence necessitating a display of civic and private hospitality that is rarely seen. But Brandon must have live-stock to have a fat stock show. Some day soon Brandon's business men will take down a map and see how easy

it is to extend a railway line up by Hamiota to Binscarth, and so tap the great cattle country about Yorkton, and having once secured cattle they will then establish stock yards and markets. With this accomplished the asylum and Smithfield farms will have to give way to city buildings, Brandon prices will be quoted on all the world's markets and many of her citizens will be in the class of the "rich" through energy and opportunity.

Man.

WM. IVERACH.

The above letter was received immediately after the Winter Fair but the press of other matter prevented us from printing it. ED.)

The Hog of To-day

The hog is more of an individual than a machine, and his breeder should treat him as such. Methods which may be accepted as established have been worked out in swine breeding, but adherence to all of them cannot, for many practical reasons, be rigid. The breeder himself, his breeding stock, environment, feed resources, climate and other factors are so largely involved that one man's success may spell another man's failure. A common-sense type of hog in the hands of a common-sense breeder constitutes a combination best calculated for satisfaction and profit during a succession of years.

Live-stock husbandry represents a high type of constructive effort, and swine breeding offers as much satisfaction and gain as any other branch. It may profitably engage the attention of the man who raises hogs merely from financial motives, but a breeder who attains a foremost place in his calling has an interest in his business not inspired solely by rewards in money. The compensations of swine raising are ample for the man who desires to make his work a profession, as hundreds who have a just pride in their achievements can testify.

Intelligence used in his breeding and care has raised the hog from the plane of the veriest savage, unsought except when hunted like any other wild beast, to that of a benefactor, contributing a wide variety of meats, among them the most toothsome known to the epicure, and other products essential to the best tables, to commerce and the trades. The hog's disposition has yielded to the influence of good breeding. His conformation has been molded by skilful methods from bony, angular uncouthness into a structure of massive width, depth and thickness, affording a marvelous yield of pork and lard. Incidentally, by domestication and generations of breeding him for early maturity and quick fattening, the length of his intestines has been increased, it is claimed by scientists, more than 130 per cent.

Swine are as susceptible as other animals to the influences of environment, and three or four generations cover a period long enough to bring about great changes in them. Experiments made at the Wisconsin station in crossing the wild or Razor-Back hogs and their crosses with the improved and approved breeds showed that a marked improvement in appearance and quality in the wild hogs' progeny was possible, although in constitution and gains of flesh they did not compare with pure-breds, and when cholera struck the station herds of the supposedly harder hogs were the first to succumb. Their feeding habits were irregular; on one day they would gorge themselves so that they would be found fasting for the next day or more. These compelling forces of heredity made plain that both right breeding and right environment are essential to the attainment of right results. At the same time environment may be, in some cases, as destructive in its results as in other cases it is beneficial. Swine typical of the best breeding require but two or three generations of wrong environment to degenerate to the level of the most unimproved types. Much, therefore, depends upon the breeder and his provisions for and care in handling.

—From Coburn's "Swine in America."

Treating Scours in Calves

Professor C. C. Humphrey, of Wisconsin University, gives the following outline of the method followed on the experimental farm to prevent and cure scour in calves. First, special care is taken to avoid scours by keeping the calves in clean, bright, well-lighted and well-ventilated quarters. They are fed regularly until four weeks old on two to six pounds of their mother's milk three times daily. Care is taken to have the temperature of the milk as near that of freshly drawn milk as possible and always to have the calf pails scrupulously clean.

In spite of all precaution, we now and then have cases of scours among our calves. For the past two years we have successfully treated such cases as follows: As soon as symptoms appear, two to four tablespoonfuls of castor oil are mixed with one-half pint of milk and given to the calf. This is followed in four to six hours by one teaspoonful of a mixture of one part salol and two parts sub-nitrate of bismuth. It can also be given with one-half pint of new milk or the powder placed on the tongue and washed down by a small amount of milk.

The salol and sub-nitrate of bismuth can be secured from any druggist mixed in the proper proportions at the time of purchase and thus have the powder readily available for use at any time. As an additional precaution against contagious scours, it is advised that the navel of the new born calf be wetted with a 1 to 500 solution of bichloride of mercury (corrosive sublimate)

FARM

Letters Upon Farming Operations Welcomed.

Topics for Discussion

To afford an opportunity for the interchange of ideas, and to provide a place where information may be given and received, we will publish each week at the head of this department a list of topics, which our readers are invited to discuss. Opposite each topic is the date of publication of contributions on it and readers are reminded that articles contributed on any of the subjects given, must be in our hands at least ten days earlier than the subject is scheduled for discussion in our columns.

Readers will understand that this department of the paper is entirely and altogether their own. They are invited at all times to write the editor fully and freely expressing their opinion of the manner in which it is conducted. They are invited to suggest topics to be discussed. If any reader has in mind any question which he or she may think could be profitably discussed, it will be given a place in the order of subjects, if brought to the notice of the editor, and is of sufficient general interest. Because this notice runs weekly at the head of the Farm Department does not mean that farm questions, only, may be discussed. The discussions will be spread over every department of the paper.

For the best article received on each topic, we will award a first prize of Three Dollars and for the second best Two Dollars, paying the latter sum for other contributions on the subject received and published in the same issue. Article should not exceed 500 words in length.

ORDER OF SUBJECTS.

May 19.—Which pays the average farmer best, to stable feed and fatten his steers in winter, to feed them outside in yards or in the scrub, on hay or straw and grain, or to sell them as stockers? Some farmers may think that none of these three methods of handling, offer profit making possibilities so they are invited to explain their own system of turning profit out of the cattle they rear each year. Just now while the experiences of a season's operations are fresh in the mind is a good time for the discussion of such questions as this.

May 26.—Describe your farm garden tell what, and what amount of vegetables, fruits, and flowers are grown. Send photos if you have them. Miss Brenda Neville is contributing articles upon garden subjects which we would like our readers to discuss.

June 2.—What do you consider is the best method of using the time of the men and horses in the fields, on summer fallows, at haying and harvest? Is it better to quit at 6 at all times or to work later?

June 2.—What is the best way to clean up a poultry house, to rid it of vermin and make the surroundings healthful. How do you make and apply the wash.

The Value of Inoculating the Seed

EDITOR FARMER'S ADVOCATE:

Regarding the growing of clover there is one point, learned from my own experience in growing this crop in an experimental way, that may interest some of your readers. I began with two varieties, alfalfa and White or Dutch clover. I sowed my first alfalfa on June 10th, 1907, and it did remarkably well the first year. In the fall I had a good even stand all over the plot that averaged 21 inches in height and gave a yield of 1 pound, 3 ounces to the square yard. In 1908 I noticed that the plants in the plot that had been inoculated had nodules on their roots, while on the uninoculated plot only few plants showed any. There was, however, between the plots a marked difference in appearance and strength of the stand. The alfalfa that had been inoculated was far the best, was of a rich green color and averaged 32 inches in height. A square yard of the crop weighed 4 pounds cut in July and there was a second cutting in the fall that was left on the ground. On the other plot the alfalfa grew spindly, was of a yellowish color, measured 24 inches in height when cut at the same time in July, and yielded 2 pounds, 4 ounces to the square yard.

The Dutch clover grew well and I believe will make a splendid pasture. This variety seems to take well to our soil and climate, and spreads itself well on the ground. This tendency to spread prevents it from growing very high and I am inclined to think that Dutch clover would be better for pasture than for hay. The land is a sandy loam with a clay subsoil. It was broken and backset the year before the clover was sown, potatoes being the first crop grown upon it.

A. J. YOUNG.

OUR LESS IMPORTANT FIELD CROPS

The price of flax seed has been comparatively high recently and many farmers will feel inclined to give this crop a trial for the first time.

In Ontario and the Eastern States flax is usually grown for the fiber, but in the West it is exclusively grown for seed.

The Manitoba Crop Bulletin of December 15th, 1908, gives the area in flax in the province as a little over 50,000 acres and the yield slightly over half a million bushels, averaging 11 8-10 bushels per acre.

The province of Saskatchewan in 1907, as per final report of February 1908, grew 125,029 acres of flax, averaging nearly eleven bushels per acre. A large proportion of the flax in both provinces was grown on new breaking. The virgin prairie is plowed as early as possible in the spring, then disced and spike harrowed until sufficient soil for a seed bed is obtained. This treatment is often followed by "planking," that is a leveller composed of planks nailed together, clap-board fashion, is drawn over the land to level it before seeding. The best time for seeding is towards the end of May or beginning of June. The usual practice is to use from two to three pecks of seed per acre, but a somewhat heavier seeding has given the best results at Brandon Experimental Farm. A disk drill, in good repair, is the most suitable implement for this purpose, as it cuts its way through sod or rubbish and deposits the seed at a uniform depth. Usually it is advisable to follow the drill with the ordinary iron harrow, and a good rolling will facilitate cutting at harvest time.

In selecting seed care should be taken to secure a sample free from noxious weed seeds. Nearly all the flax offered for sale is more or less mixed with wild mustard seed. I have found six separate and distinct kinds of wild mustard seed in one sample of flax seed. It is difficult to separate mustard seed from flax with the ordinary fanning mill, and I have found thousands of acres of new land seeded down with ball mustard, false flax and hare's ear mustard the very first year of cultivation.

When flax is sown on old land it pays to use only summer fallow or broken grass sod, otherwise the weeds will prevent the harvesting of a paying crop. The young flax plant is somewhat delicate and will not thrive when badly crowded with weeds.

Flax is a short season crop and will mature quickly, but it should be harvested as soon as ripe and not left exposed to the weather for weeks afterwards, as is the practice with some farmers in the West.

Where large areas of flax are grown it is the usual practice to cut the crop with a grain harvester, having the tying portion removed altogether, or worked without twine. This leaves the flax in bundles, these are left on the ground until dry and then drawn direct to the threshing machine.

Flax is somewhat difficult to thresh and should be fed slowly into the separator. The price charged for threshing is somewhat higher than for grain. Flax seed is easily damaged from mould and should be quite dry when binned and kept where the snow will not drift on it.

THE FIELD PEA

The field pea has been grown for human food from the early ages. This grain has been found in the Swiss Lake dwellings of the bronze period.

The different varieties vary greatly in size, color, and earliness. These different kinds have been produced by crossing and selection.

As stock food peas are very nutritious and are greatly relished by swine and cattle, and in England they are fed in limited quantities to horses engaged in heavy work. This grain succeeds best in a cool climate. Canada and the Eastern States produces the bulk of the American supplies, and the Western prairies of Canada grow a better sample than can be produced in any other part of Canada. They are very heavy in

By S. A. BEDFORD

weight, quite free from injury by the pea weevil, and are seldom discolored from mould or exposure to weather. The usual dry harvest weather of the West ensures an excellently colored sample.

The vines after the peas have been removed make good fodder for sheep, but should not be fed to horses as the straw is injurious in some cases.

Immense quantities of peas are grown in the States of Delaware, Maryland and New Jersey and a few counties in Ontario for canning purposes. For this purpose the vines while still green are run through what are called "Vinners" which remove the soft green peas without injury.

In the South and East this grain has two insect enemies. The one is the pea aphid, a green louse, which feeds on the juices of the plant and often completely destroys the crop. The injury from this little insect is said to have cost the pea growers of the United States four million dollars annually.

The other insect enemy is the pea weevil. The eggs of this insect are deposited by a fly on the young pea pod in blossom, later on when hatched the larva burrows its way into the soft kernels of the grain and feeds on it until winter, when it works its way out leaving little more than the shell of a pea behind. Weevil-eaten peas are light and usually very few of them germinate.

with the wind. Owing to our ideal harvest weather the peas will remain in the pod for weeks after ripening without injury. If pulled with a sythe when nearly ripe, as is often done in the East, the bunches will frequently roll for miles with the first stiff breeze and shatter out all the grain on the way.

While all other grain crops tend to the depletion of the fertility of the land a crop of peas gathers nitrogen from the atmosphere and builds up the soil, for that reason fall wheat is often sown on fall stubble in Ontario in preference to summer fallow.

RYE

The cultivation of rye is not nearly so ancient as that of wheat and barley. It was unknown to the ancient Egyptians and the ancient Greeks did not mention it. Its introduction into the Roman Empire was hardly earlier than the Christian era.

Its cultivation is supposed to have originated in North Eastern Europe. It was formerly a very important crop. About the middle of the past century rye formed the principal sustenance of one-third of the population of Europe. In the early days it was sown mixed with wheat and in New England corn and rye were often mixed for flour. About one-half of the world's production of rye is grown in Russia and fully five-sixths is raised in Russia, Germany and Austria Hungary.

Russia raises more rye than the United States does wheat, but in France and England rye holds but a subordinate position.

The average yield per acre of this grain in the United States is about 12 bushels, and the average price 62 cents per bushel, the least average value per acre of any of the cereals, when we consider the grain alone.

The acreage of rye sown in Manitoba shows a rapid increase, the Government Report for 1906 estimates only 6,029 acres in this crop, while the final crop bulletin estimates the area sown in 1908 at 17,611 acres and the yield at 19 bushels per acre. No doubt this increased area is largely due to the additional

land devoted to this crop by our Russian immigrants, many of them still preferring the black rye bread of their forefathers.

The rye plant is much hardier than the wheat plant. I have found fall rye quite hardy at Brandon, and I understand that the Minnionite settlers in Southern Manitoba grow a considerable area of it.

Rye has the advantage of being able to produce a crop of grain on soil so badly exhausted that no other kind of crop will grow. It is excellent as a nurse crop for seeding down to grass, as it occupies the ground only a short time, is very erect and does not shade the ground to any great extent.

Rye also makes one of the earliest soiling or pasture crops in spring. The fall variety sown the previous August is often fit to pasture by the end of May and can be cut for green fodder early in June. Land that is badly exhausted may be restored somewhat by having repeated crops of rye plowed under in a green stage. This plan adds considerable humus to the soil and assists in restoring the fertility.

There are two well known kinds of rye, the fall and spring, but there are very few varieties of each, Giant and Common are the only two I have met with and there is very little difference between them.

Bread from rye flour is supposed to be more nutritious than that made from wheat, but it is much darker in color and very quickly sours. The grain is largely used for distilling.

Rye straw is very useful for some purposes, being tougher than that of other grain. In Europe thousands of people are employed throughout the year in the production of baskets, hats, etc., from the straw. In America, about its only use is for stuffing horse collars, the making of paper and for packing. If cut quite early before the head is well formed it makes a very fair hay,



THRESHING CROP OF SPELTZ WHICH YIELDED 84 BUS. PER ACRE, ON FARM OF JAS. WILSON, DUGALD, MAN.
This section grew 17,000 bus. of grain in one season, 9000 of which was wheat, realizing \$6740.



GEO. A. HARRIS.

One of the prize winning grain grower's in the Heward district, Sask. Mr. Harris specializes in oat growing, and won first prize in oats at the Regina Provincial Seed Fair.

but is much too hard for this purpose if left later.

The grain can be used for stock feeding to a limited extent, being perhaps about equal to wheat for that purpose. The by-products from rye are bran and distillers' grains. Rye bran has about the same feeding value as wheat bran.

By the Grain Inspection Act rye is divided into three grades: No. 1 and 2 Manitoba rye and rejected. From the wording of the Act it would appear that the principal objection to some of the samples is the mixing of other grains with it.

Land for this grain should be prepared as for wheat, and about one and one-half to two bushels of seed used, it matures quicker than wheat, and if sown at the same time can be harvested and stacked before the wheat.

Although I can not recommend the general cultivation of rye in this county for the grain alone, I think that it will often prove very useful for early pasture or for a soiling crop, and the straw can generally be sold, if convenient, to large harnessmakers.

SPELTZ AND EMMER

There is considerable confusion among average individuals regarding the above cereals. What is generally grown in the West as speltz is properly speaking, a variety of emmer, and the true speltz is almost unknown here.

Common emmer is the variety usually grown here, it has about 78 per cent. of kernel to 22 per cent. of husk. The straw of emmer is very free of rust and usually stands up well. If the crop is allowed to become over ripe and some of the heads break off and scatter on the ground, reducing the yield more or less and sometimes proving a nuisance to future crops.

Emmer withstands drought rather better than wheat. On some soils it also proves more productive than the common wheat, but when we consider the amount of kernel alone it scarcely ever equals the macaroni or goose wheats. The Brandon Experimental Farm has usually given large yields of this grain. Evidently the soil there is specially well adapted to emmer. In 1901, emmer gave a return of 3,080 pounds of grain, including husks; Red Fife, 1,720; American Beauty oats, 2,320 pounds and Mensury barley, 2,320 to the acre.

Owing to the unusual size and formation of the berry of emmer there is much uncertainty regarding the most suitable manner of setting the grain drill when sowing this grain. In 1902 it was found at the Brandon farm that with the Massey-Harris shoe drill set at $1\frac{1}{4}$ bushels of wheat the best yield was obtained.

In the same year it was found that there was only a difference of about two bushels per acre in favor of summer fallow as against unplowed stubble.

During that year a trial was made in feeding emmer to fattening steers, in comparison with a mixture of wheat, oats and barley. The lot of steers fed on emmer gave a somewhat larger profit than those fed on mixed grain.

Although on certain soils and under peculiar conditions emmer may give very fair returns and prove useful for feeding purposes, it will not equal Mensury barley either in yield or usefulness on the average Western farm.

Binder Twine from Flax Fibre

Binder twine, to the amount of about 30,000,000 pounds, was used in Canada during the season of 1908, all of which was made from fibre that Canada was obliged to import. At present, twine for the Canadian harvest is manufactured from manilla fibre from the Philippine Islands, sisal from Yucatan, and New Zealand fibre from New Zealand. At the request of the Department of Trade and Commerce, Inspector J. L. Haycock has submitted a report on the manufacture of binder twine from flax fibre. We quote this report as follows:

The value of the fibre used in the Canadian industry would, even at present prices, which are the lowest for eleven years, represent an outlay of over \$2,000,000. And, with the continued development of the Canadian Northwest, the amount required annually will not only be more than doubled in the next ten years, but will increase for many years to come. A large amount of time and money has been expended in Canada, United States and elsewhere in trying to obtain a native fibre that would answer the same purpose. The plant which seems to give the greatest promise of success, and the one that has received the most experimental attention in this line is flax. But the great difficulty has been to invent some process by which the fibre could be separated from the woody matter or "shive" in the plant.

FLAX FIBRE EXTRACTED BY ROTTING

Of course, the value of flax fibre for the manufacture of various fabrics, yarns, threads and twine has been long recognized, and utilized for numerous purposes for hundreds of years, but the systems adopted in the past for extracting the fibre from the plant have been crude, slow, and expensive. Under these systems, it was necessary to put the plant through a process of rotting, or, as it is commonly called "retting," in order to get it into a condition whereby the fibre could be separated from the plant.

The first of these systems was known as "dew retting," and consisted in spreading the flax straw thinly on the ground, turning it frequently, and continuing the process until the action of the dew and rain on the plant had rotted it sufficiently to separate readily. The second, "river retting," consisted in placing the flax in large crates, sinking the filled crates in water, and, by weighting them with heavy stones, keep them submerged until sufficiently rotted. The third system is known as "tank retting," and consists of building large tanks, in which the flax straw is placed, pumping water in, and leaving until ready to separate. With these two latter systems the straw had to be taken out and dried before any further operation.

SUCCESSFUL SEPARATION BY MACHINERY

In order to overcome the difficulties in connection with these processes, various machines have been invented for the purpose of separating the fibre, without the "retting" process. So successful have been some of these inventions, that in Canada, at the present time, machinery is in use extricating the fibre from the unretted flax quite satisfactorily. In fact, the separation of the fibre from the unretted flax, and the manufacture of it in various grades of shop, counter and other commercial twine, has passed the experimental stage, and is now being carried on profitably.

There has also been a small quantity of binder twine made from this fibre, which, it is contended, has done good work in the field, although it is thought that some slight improvements are still necessary before it will be perfectly satisfactory. These improvements will undoubtedly be made in a short time, and the result will be materially beneficial to Canada.

YIELD WOULD BE 600 POUNDS TWINE PER ACRE

Under this process, the yield of fibre is about 300 pounds per ton of flax, and, as the average yield of flax is about two tons per acre, it would mean about 600 pounds of fibre per acre. The area of flax grown in the Provinces of Manitoba, Saskatchewan and Alberta for the year 1908 was about 200,000 acres, which, at 600 pounds per acre, represents a yield of 120,000,000 pounds of fibre. If manufactured into binder twine, the quantity would be four times as much as was required to tie the Canadian grain crop of 1908. At present, all this flax, after separating the seed, is burned. There is annually paid out in Canada \$2,000,000 for 30,000,000 pounds of fibre, while, at the same time, 120,000,000 pounds of fibre is burned.

High Prices for Grain and Shires

OUR ENGLISH CORRESPONDENCE.

The alarming scarcity of wheat is the topic uppermost in everyone's mind at present. London has only 50,000 quarters in storage—a single week's supply and stocks all over the world are said to be low. The supplies in farmers' hands here are only about 20 per cent. of the average for the time of the year.

The primary cause of the shortage was the failure of the Argentine crop through frost last December, and an indirect cause is certainly the Chicago "corner."

Prices have bounded up with remarkable rapidity, English wheat was quoted at 36s. per quarter at the beginning of February, and now as high as 50s. has been attained.

There are signs that at this high figure the limit has been reached for the present and the prices show a tendency to decline.

Dearer and dearer bread has been the consequence and poor people have suffered severely owing to the rise.

Very few English farmers could have been convinced a few years ago that wheat would ever go over 40s. a quarter again, but year by year the average price has crept up to the present high figures.

Farmers here will not benefit much by the abnormal prices as most of their wheat has been disposed of, and even dealers do not seem to be in a position to make large profits owing to the small stocks week by week for some time past.

If wheat should keep permanently near the 40s. mark the acreage of wheat in the United Kingdom will be largely increased, perhaps doubled.

The "Mark have Express" thinks the present prices are genuine, and encouraging from the point of view of the producer. Editorially, the Journal claims, that low prices accepted for wheat last autumn are the cause of the present high quotations and calls for assistance by state or bank aid to enable farmers to hold their wheat so that deliveries may be steady throughout the year instead of being crowded into the first half of the cereal year.

Some authorities claim that the high prices will bring out reserve supplies from all sorts of unexpected quarters, but for the moment the outlook is exceptionally alarming.

* * *

The Dairy Society has published some exceedingly valuable and interesting data regarding dairy cattle. The Society has made many tests in the last quarter of a century, and the results of the milking trials and butter tests at the last meeting bring these tests up to date.

The awards are calculated on the following basis—each breed being required to reach a certain standard of points:

One point for each ten days since calving, deducting the first forty days, with a maximum of twelve points.

One point for every pound of milk, taking the average of two day's yield.

Twenty points for each pound of butter fat.

Ten points are deducted when butter fat falls below 3 per cent., and ten points when solids not fat fall below 8.5 per cent.

The standard set for each breed is as follows:

	Points
Pedigree Shorthorns.....	90
Lincoln Red Shorthorns.....	100
Non-Pedigree Shorthorns.....	110
Jerseys.....	95
Guernseys.....	85
Ayrshires.....	90
Red Polls.....	90
S. Devons.....	100
Kerries and Dexters.....	75

At the last meeting 91 cows were tested and 33 exceeded the standard. Ayrshires, Red Polls and Dexters showed many failures. Five Jerseys out of 16 were successful; 10 Pedigree Shorthorns out of 15 tested; and 4 Kerries out of 5. A peculiar feature of the test is the comparatively low scale of points for the Pedigree Shorthorns in comparison with the Non-Pedigree.

Twenty-two animals failed to produce 3 per cent. of butter fat; 12 of these being of the Shorthorn breeds. Still the 15 Shorthorns averaged 48½ pounds of milk per day, and 12.58 per cent of solids. The Non-Pedigree Shorthorns averaged 51 pounds per day, with 12.7 per cent. solids, and a fat average of 3.83 per cent.

The Jerseys fell off very much from the showings of recent years, and Guernseys showed the same tendency in a lesser degree. The Ayrshires were disappointing, fat averaging only 3.13 per cent with a low yield. The Kerries did well.

The Champion was the Pedigree Shorthorn, "Dorothy", though her fat percentage was lower than some others, both Pedigree and Non-Pedigree Shorthorns, she produced a much larger quantity.

These contests show how few dairy farmers are able to judge what their cows really are as producers, and how very few actually test their cows.

* * *

The Easter Parade in Regent's Park of the London Van Horse Society was a decided success, and formed a delightful holiday feature. The entries have grown from 132 in 1904 to 458 this year. The great drapery houses of the West End are strong supporters

of the movement, and contribute liberally to the 300 premiums offered. The great object of the Society is to induce drivers to care for their horses, and take a pride in clean, neat harness.

* * *

Gloucester people are putting a good deal of solid work into their preparations for the coming Royal Show, and the arrangements are in an advanced condition. The implement and machinery department will have 12,866 feet allotted, which is 851 feet more than at the Newcastle Show.

An interesting feature of this year's Show will be a forestry exhibition in conjunction with the Arboricultural Society.

Plans are being made for an agricultural motor's trial in connection with the Liverpool Show in 1910.

* * *

The Meat Traders have issued a manifesto, to the public, claiming support in the matter of demanding to be supplied with meat purchased with the vendor's warranty. They claim that the warranty demand guarantees a pure-meat supply, and that the present conditions entail great hardships on the butchers.

Farmers claim that the possibility of loss from tuberculosis is purely a trade risk to be borne by the butchers and no one else, and still refuse all warranties.

* * *

The annual report of the Lincoln Long-Wool Sheep Breeders' Association shows a favorable condition of affairs.

The numbers of sheep exported during the year were 1,286 rams and ram lambs, and 282 ewes and ewe lambs. These figures are lower than usual.

The funds of the Society show an increase and the present membership is 286.

* * *

At the Lincoln sheep fair nearly 8,000 sheep were penned, but trade was far from brisk. Prices were lower than last year—at least 5s. per head on an average.

* * *

The Nottingham Corporation sold a hundred White Yorkshire pigs at their farm, and they realized £896. The highest price was 23gs. for a sow sold to the Earl of Ellesmere.

* * *

The sale of Shire horses owned by the late Earl of Tatton was highly successful. The stud of 21 animals made altogether £9,769. The stallions averaged £545, and the mares and fillies £208. The celebrated stallion "Tatton Dray King"—last year's London champion was sold to Messrs. Whitley, Devon, for the high price of 3,700 guineas.

* * *

The feature of the Spring Show of the Royal Dublin Society was the success of the English exhibitors. The entries this year were rather fewer in number. The show was favored with splendid weather, and a capital attendance.

In the Shorthorn classes competition was keen and the quality high in all the thirteen classes.

Herefords were well shown, and of considerable merit, and the same may be said of Aberdeen-Angus. The horse sections were fairly well filled, but the exhibits were not of outstanding quality.

The Queen Victoria Cup, offered this year for the best group of young Shorthorns bred in Ireland, was won by Lady Smiley, of Ardmore, Larne.

* * *

The Royal Horticultural Society is in a flourishing condition and its annual meeting discloses a surplus of £7,867 and a membership of nearly 11,000. The Society's experimental gardens at Wisley has carried out a series of tests with nitro-bactarine, and these experiments showed no effects—either good or bad. The same results followed experiments made by the President, Sir Trevor Lawrence.

Leeds, England.

F. DEWHIRST.

The Essential Points in Root Growing

Editor "Farmer's Advocate":

In a recent issue you asked for information as to the cultivation of mangels, turnips and carrots. Although they all belong to the root family, they thrive best and give best results in different soils. The cultivation is very similar in each case. The land intended for roots should be heavily manured the previous fall with well-rotted manure, giving it at best twenty loads per acre. It should be plowed five or six inches deep, harrowed and left for the winter. In the spring, the cultivators should be put to work as early as possible, and then the land left for a few days for the sun to kill weeds. It should then be harrowed and left for a few days more. After this, it should be packed firmly, especially for mangels. This preparatory cultivation should leave a nice, even seed-bed.

Sowing should be done as soon as all danger of frost is over. If a large patch is to be sown, it is best to seed it at two or three different dates, as such seeding will give you a better chance at thinning time. The distance between rows should be thirty inches. This gives plenty of room to get the horse hoe through. Let me say right here

that useful implement cannot go through the patch too often during the growing season.

There are three ways of sowing: One is by the ordinary seed drill, but practicable and desirable only where a large acreage is sown; second by a specially-constructed drill for these seeds; third, by a small hand drill. If none of these are available, a very simple and inexpensive way is to get a fork handle sharpened to a point at one end, and make holes the required distance in the rows, and drop three or four seeds in each hole, covering by pressing firmly with the foot. The quantity of mangel seed required per acre is five pounds. Sow with this a few ounces of turnip seed, as by doing this you will be able to get at the weeds sooner, as the turnips will show up in the rows sooner. It is a good plan to soak the seed in luke-warm water the night previous. Soaking starts the seed more quickly, especially if the weather is inclined to be dry at the time of growing. Of turnip seed, three pounds are required per acre, and of carrots, the same.

The next important thing is thinning the plants in the rows. This should be done when the plants are about three or four inches high; the higher they get, the more difficult to handle, and thinning, too, gives the plants a greater check. Mangels should be thinned out to fifteen inches apart in the rows. If procurable, nitrate of soda may be applied to the soil at the rate of one hundred pounds per acre. This is best applied by putting about a good teaspoonful to the root of each plant directly after they are singled. This gives the plants a good start and well repays the trouble and expense. Turnips should be thinned out to one foot apart and carrots eight inches.

Harvesting should be done, if possible, before frosts appear, especially mangels and carrots should be taken off before any severe frosts occur. Great care should be taken of these two crops at raising time. They should not be bruised, and the mangels should have their leaves screwed off, not cut, for if cut, they are liable to bleed.

As to soil, mangels thrive best on a heavy soil; turnips prefer a rather gravelly soil, and carrots a good, deep loam.

Man.

J. R. RICHARDSON.

Determining the Quantities of Materials Required in Concreting

The materials required in concrete work are cement, sand, stone or gravel and water. Sand should be clean, coarse and free from loam, clay and vegetable matter. Dirty sand should never be used. The strength of the concrete will be limited by the strength of the sand and only a part of the full value of the cement developed.

The largest part of the concrete is the crushed stone or gravel (pebbles, as they are often called). Other materials are sometimes used in place of stone or gravel, such as ashes, cinders, coke, brick-bats, etc., but it is safer to use crushed stone or gravel. The stone or gravel should be clean; that is, free from loam, clay, or vegetable matter. Especial care should be taken to inspect the pebbles, as often clay is deposited in a thin layer on their surface and this layer prevents the binding of the cement. Gravel can be washed in the same way as sand, but more easily, as the water flows through the large voids in the gravel more readily than through the voids in the sand. Dust may be left in the crushed stone, but some care should be taken to see that it is distributed evenly throughout the whole mass, and slightly less sand used.

The proper size of stone (or gravel) varies with the form of construction. Use anything up to 2½ inches in diameter for foundations or large thick structures. Use 1½ inches and under (generally about ¾ inch), graded, for thin walls and reinforced concrete. Use ¾ inch and under for a finish or very hard coating. The best results are obtained from a mixture of sizes graded from the largest to the smallest. This reduces the spaces or voids between the stones or pebbles and makes a more compact concrete. It also requires less sand and less cement.

Naturally mixed bank sand and gravel are sometimes found in the right proportions for making concrete. Generally, however, there is far too much sand for the gravel, and great care should be exercised in using this class of material. Unless the mixture runs very even throughout the bank, and is found to be made up of one part sand to two parts gravel, it is better to screen the sand out of the gravel and prepare the materials in the usual way.

Water for concrete should be clean and free from strong acids and alkalies. It can be readily stored in a barrel beside the mixing board and placed on the concrete with a bucket, as this allows careful measurement and insures the desired wetness of the mixture. In estimating the quantity of these various materials required for any particular structure, first determine the number of cubic feet of concrete that will be required by the work in question. Then by multiplying this number by the number under the proper column and required mixture shown in the table below, the amounts of cement, sand, and stone or gravel can be found. The figures given under mixture, refer to cement, sand and gravel or stone, in order. The two mixtures given are standard ones,

the first where a good strong concrete is required, the second for ordinary foundation and other work.

Quantities of Material in 1 Cu. Ft. of Concrete.

Mixture	Cement, Barrel.	Sand, Cu. Yard.	Stone or Gravel, Cu. Yard.
1 : 2 : 4 Concrete ..	.058	.0163	.0326
1 : 3 : 6 Concrete ..	.041	.0174	.0348

As an example suppose the work consists of a stable foundation requiring in all 360 cubic feet of concrete, to be mixed in the proportions of one of cement to three of sand to six of gravel or broken stone. Solution:

Cement for 360 cubic feet, 1 : 3 : 6 concrete is 360x.041=14.76 bbls.

Sand for 360 cubic feet, 1 : 3 : 6 concrete, is 360x.0174=6.26 cubic yards.

Gravel for 360 cubic feet, 1 : 3 : 6 concrete, is 360x.0348=12.52 cubic yards.

If concrete work requires painting with a 1 : 1 mixture of sand and cement, figure the quantity of materials required on the basis that one cubic foot of the 1 : 1 mortar will paint fifteen square yards of surface and requires 0.1856 barrel of cement and 0.0263 cubic yards of sand.

Principles of Tariff Protection

EDITOR FARMER'S ADVOCATE :

The wisdom or unwisdom of the present system of tariff protection in Canada, is a point which has been much debated, and, I suppose will continue to be debated for many years to come. Adopted originally as a temporary measure, intended to establish urban industries more rapidly in our young country, and to be withdrawn when these were once established, it has apparently become a settled system. There is practically no political division on the question, and politicians have apparently made up their minds that the system is here to stay. Perhaps it is fortunate that this question does not figure prominently in party politics to-day, for it allows us to consider the question on its own merits, and free from party bias. It is the duty of every citizen to consider the question carefully, and to decide whether or not it is wise to have this system fastened upon us permanently. To the farmer, particularly, as the one who has everything to lose, and nothing to gain, through the system, the question is one of very great importance.

It is my intention to deal with the subject specifically—to speak not of theories, but of facts. But, in order to thoroughly understand the subject, it is necessary to first consider the theory, leaving the facts to be dealt with later.

"Protection" is afforded to home industries by means of a customs tax, more or less heavy, levied on the products of similar industries entering from other countries. This increases price and can be sold by just the amount of the tax. Without the tax, the selling price is made up of three items: cost of manufacture, freight charges and profits. With the tax, these items remain the same as before, but have the amount of the tax added to them. Thus, the selling price to the consumer is raised by the full amount of the tax. But, not only is the price of the imported article raised, but the price of the homemade one is raised to the same level. There cannot be two prices for the same article, even if one is homemade and the other imported. In this way, regardless of cost of production, the selling price of the homemade article is artificially enhanced by the full amount of the customs tax. The protected industries are aided by being enabled to charge a higher price for their product than they otherwise could. They are given a bonus equal to the amount of customs tax, and are allowed to collect it from the public in the form of increased prices.

But it is worth noting that this only applies to those industries whose products do not fully supply the needs of the home market. Where the products of any industry more than supply the home market so that a surplus must seek a market abroad, the advantage of the protective duty cannot be taken advantage of, unless there be a combine to fix prices, so that there shall be two prices, one designed for the home market, and the other for competition with the world. In the absence of such a combine, prices will be uniform for the whole of that commodity, and must be fixed by the price received for the exported surplus. In Canada, the one great industry that is not, and cannot be—at least for many years to come—benefited in the slightest degree by a system of protection, is agriculture. Our greatest natural resource is our soil, and, as that resource is just developed, it is now, has always been, and will be for a very long time, true that our agricultural products will be more than we need, we shall have to depend on a foreign market for the selling of our surplus. This, of course, carries with it the truth that agriculture in Canada cannot benefit to any extent by protection.

It has always been urged by the opponents of protection that it can only benefit the protected industries by hampering the other industries of the country. This is true. The higher price of the protected commodity is paid, not by the foreigner who sends his goods here, but by the people who buy and use that commodity. The full effect of the tax, as a moment's reflection will show, falls ultimately on

those industries which either are not protected, or cannot, from the nature of their production, reap the benefits of protection. These are the strongest industries, and those best suited to the country. Thus, there is always the danger that those industries naturally adapted to the country will be held back for those not adapted.

This is the reasoning advanced by those who oppose protection in any form. Yet, there may be protection wisely applied to the benefit of the nation. Where it is given only to those industries which are likely to flourish, and is given as a temporary help, the effect may be to establish many industries that otherwise, exposed to full competition from similar industries already established, could never be started. It is, however, a dangerous system in any case, on account of the difficulty of applying it wisely. It at once creates a class of beneficiaries, whose interest it is to perpetuate the system. Such a class, under our form of government, may gain great power, and use it to the harm of the whole community.

Two things are to be feared from a permanent system of protection. The first is that industries will be maintained that are not suited to the country, and that will be a perpetual burden upon it, just because the tax protection enables them to levy on other industries; and, second, by their diversion of men and money from other and more profitable channels. The second is the formation of combines to enhance prices, either by restricting production to less than the needs of the home market, or by fixing a price for the home market higher than that of the export trade. There is reason to believe that all these things exist in Canada at the present time, and that the whole burden of the system falls on agriculture, and so heavily that this industry cannot hold its own. A tax higher than all other taxes combined, paid for the benefit of other industries, may have a good deal to do with our decreasing farm population, with the low profits of farming, with the problem of farm labor, and with many of our other difficulties. It is my hope to explain this more fully in future.

E. C. DRURY,
Grand Master Dominion Grange.

Silage, What to Grow for it and How to Do It

EDITOR FARMER'S ADVOCATE :

Perhaps the relation of ones experiences in growing crops for silage will be of interest, especially to those who displayed as much concern in the construction of silos in the early winter as some of your readers did. Corn is the crop mostly used for silage making, because of the large yield per acre and for its succulent properties. But the experience of the last three years, particularly, has convinced me that we Western stockmen must not depend altogether upon corn for this purpose. It is too tender for a safe crop, and having nothing else one is apt to be left with an empty silo, an event to be reckoned little less than disastrous where milk or beef production is the object aimed at.

Up to 1906 my practice in preparing for corn had always been to prepare stubble in spring, by disking as soon as possible, and at short intervals until the land was plowed in the first or second week in and the seed sown about the 20th. Some very nice crops were secured in this way, but there were always some weeds and volunteer grain amongst the corn in the rows which troubled me considerably as I could not find time to hoe between the plants in the row, and was not satisfied that I was producing the best possible ensilage. I wanted to produce clean corn and for 1906 my corn field was fall plowed, thoroughly harrowed in the spring and the corn was a picture, Selected Learning growing to 10 feet in height.

My soul was glad, my vanity gratified, for did not my Ohian hired man declare the crop equalled anything he had seen in Ohio. Having corn thus nearly perfect, one had a right to expect the acme of excellence in silage, but right here was I disappointed. Judging from published information the conclusion was come to that the corn being clean, nearly ripe and undamaged by frost, that little or no water would be necessary, and little was added as the corn was filled into the silo. The result was a most extraordinary shrinkage in bulk and weight, and on opening the silo the silage was found to be the worst I had had.

Slowly as the experience has been turned over two significant facts have become apparent: That absolutely clean corn was not necessary to make good ensilage. That given plenty of water, put in when filling, quite large amounts of so-called hollow stemmed plant material, especially if very green, might profitably be added. This practically contradicted the teaching of some of our early users of the silo, who had the opinion that so much air was held in these hollow stems, as to prevent satisfactory efforts to make silage from any of these plants. In the light of this experience volunteer grain in the future will not trouble me, in fact it protects the more tender corn to some extent in early summer frosts, and the stem thus escaping through the protection afforded by the more hardy plant, has a chance to throw out new shoots and to recover from the freezing of the leaves if this occurs, say in July or early in August, as in the last two years. Another advantage is that the ensilage does not shrink as much in bulk and weight, a matter of immense importance, as in hauling to the silo, and filling, all the original weight has to be handled only to be lost afterwards.

Messrs. Garton have originated an oat which grows 8½ feet, is very leafy and containing a great deal of succulent. May I express the hope that they will introduce this soon for I foresee great things in this for the dairyman of the West who have silos. It may not produce so cheap an ensilage per ton, but one would be more sure of the tons than with corn.

I have now reverted back to my old method, using the subsoiler when plowing to give the top root of the corn a chance, sowing as near two inches deep as I can with the ordinary grain drill, stopping holes to get rows about 3' 6" apart, the harrows are kept at work until corn is too large and brittle and then the one-horse cultivator is used between the rows. Given a fair season there is a good crop.

There is nothing to choose in the seed offered so far as I can see. Comptons Early Dakota, white and yellow, and Longfellow, give similar results. Any binder will cut and tie the crop, but the canvassers suffer badly from such use, and as soon as the quantity grown justifies the expenditure there is no doubt the corn binder is the tool for the work. In filling the silo any of the ensilage cutters run by a gasoline engine give good results. They cut and blow the cut corn into the silo, in which a man with some energy should be stationed to spread evenly the stuff, mixing the leafy and stalky parts and treading well round the circumference of the silo. After each load the best part of a barrel of water should be thrown on the cut corn so as to cover the surface evenly. This will settle and consolidate the silage, prevent a too sudden and great heat, and under the generation of a gentle heat soften the fibrous parts, ensuaing a perfect cooking of the whole mass, which will retain sufficient heat to allow every particle to be cleanly removed during the coldest part of the winter, that is, IF the part nearest the outside of the silo be *always kept lower than the centre*.

To preserve the top layer after the silo is filled, a couple of loads of sweet straw, or hay cut and spread on the top, and well tramped down, is all that is necessary. In feeding ensilage, one rule is absolute, that all milking is over, and milk out of barn before feeding commences. There is then no possibility of the flavor tainting the milk. I like to throw the grain ration into the manger along with the silage, and fancy by so doing I get better results.

Man.

J. H. FARTHING.

DAIRY

A Dairy Shorthorn Record

Prof. H. S. Arkell, of Macdonald College, gives the following data concerning the milk and butter yield of the Dairy Shorthorn herd at the college during the past year. The herd has been in the possession of the college now for a year and a half and this is the first report of its performance.

Greenleaf 23rd.—Calved, October, 1907; gave, from January to September, 1908, 5,835½ pounds milk, and 240.24 pounds of butter. Test 3.4 per cent.

Buttercup—Calved, October, 1907; gave from January to September, 1908, 5,621½ pounds milk and 233.18 pounds butter. Test 3.5 per cent.

Tulip, with her first calf, gave 4,082¾ pounds milk. Test 3 per cent.

Furbelow Countess, with her first calf, gave 5,330 pounds milk, and 135 pounds butter. Test 3.6 per cent.

Barrington Duchess gave 9,756 pounds milk and 420.9 pounds butter.

Barrington Duchess also gave, during the month of March, 1907, 1,382 pounds milk, and 60.13 pounds butter. Test 3.6 per cent.

Referring to the calves raised Prof. Arkell says: "In the feeding and management of the calves, we have learned one lesson. At the beginning it was our thought to rear them much as our other dairy calves were raised. We allowed a number of them, in the beginning, to become somewhat thin in flesh, but such management did not prove most satisfactory, as it was difficult to keep them thriving well when in rather thin condition. This year we have made it a point never to lose the early calf-flesh, and, while not making them fat, we have fed them so that their ribs appeared always reasonably well covered, and we have kept them, therefore, in a hearty, vigorous condition. This has proven much the more satisfactory system, and the calves have, during the past months, been the best feeders, and, I think the best doers in the stable. We do not expect that this will detract at all from the milking capacity of the heifer calves."

Caring for Cream on the Farm

On the care cream receives before delivery to the buttermaker depends to a large extent the quality of the product he will be able to manufacture from it, and on the quality of the butter made will depend to some degree the profits of the patrons. Hence the question of handling the cream from the time it is drawn from the cow as milk, until it is delivered to the cream gatherer or creamery, is a pertinent one to those interested in the dairy business as patrons of a cream gathering creamery, quite as important to them as patrons, that they deliver a high quality raw material, as it is important to the buttermaker that he should receive such.

In caring for cream the first essential is cleanliness, cleanliness in every operation, in drawing the milk from the cow, creaming it, and handling the cream until delivery. While cleanliness is a necessary factor in the furnishing of a first class quality of cream, it is essential that it be cooled as quickly and thoroughly as possible after separation. Cooling as a factor influencing quality is too important to be overlooked. Under best conditions cream will contain a considerable number of bacteria, that if allowed to develop will produce considerable flavors and rapidly promote the souring of the cream. Milk at the temperature at which it is drawn from the cow provides conditions most favorable for bacterial growth, and cream held at or about this temperature, after separation, is in the best possible condition for going off flavor, for souring or for losing its value for buttermaking purposes. The cream should be cooled rapidly to as low a temperature as the cooling facilities at hand will permit. If ice has been stored so much the better, but if none is available then the cream cans may be set in cold water, the cream stirred thoroughly during the cooling process and the water changed frequently to bring the temperature down to the lowest point possible. The cream from each milking should be cooled before it is mixed with the main lot. Then if one is desirous of delivering an absolutely first class article he should see that his cream reaches the buttermaker without being mixed by the gatherer with that of some careless neighbor. The practice of cream haulers of mixing cream together, as followed in some localities, cannot be too strongly condemned. Even with the best of care, the use of ice, and attention to cleanliness; it is difficult to hold cream in good condition during hot weather when two or at most three deliveries are made per week. While in many respects the cream gathering creamery is a good arrangement for the patron it is not the best system for the production of the best quality of butter. It is, however, the only manufacturing system practical under our present system of agriculture and dairying and in spite of its defects will have to be tolerated until we are able to work a better one successfully.

Two contributions are given herewith in answer to our query, what method do you follow in caring for cream intended for delivery to a cream gathering creamery?

First prize is awarded to Wm. Scott, Alberta, and second to R. Robbins, Manitoba. A number of other contributions on the subject will be used later.

Some Practical Suggestions

EDITOR FARMER'S ADVOCATE :

It is difficult to outline a method of handling cream on the farm that would apply in all cases for the simple reason that individual circumstances differ greatly. I will endeavor, however, to outline the way the cream from a herd of cows is handled on my own farm. We live six miles from the creamery and deliver the cream twice a week. Our milking herd consists of twelve cows, dairy grades they might be called, for they are of no particular breeding.

These cows are driven in from the pasture every night and morning at five thirty o'clock, and milked in the stable, the milking starting always as near six o'clock as possible. We try to be as careful as possible in the milking to prevent dirt and filth of one kind or other getting into milk. If a cow comes in with a filthy udder, it is washed off. The milkers are required to have clean hands and are prevented from washing them in the milk while they are about the work. The milk, as rapidly as it is drawn is taken to a stand outside and strained through several thicknesses of cheese cloth into cooling cans. It is separated at once.

Personal observation leads one to believe that most farmers possessed of a cream separator are not using it to best advantage. For one thing a good many of them skim altogether too thin a cream. We have seen men skimming a cream that wouldn't test higher than fifteen or twenty per cent., paying express to the creamery on a lot of dead weight which the creameryman, after churning, for want of something better to do with it, was throwing down the sewer. I set my centrifuge to take just as heavy a cream as it will take and yet skim clean. I never sell cream testing below 40 per cent., fat and it does not pay anyone to do it. I can handle the skim-milk at home to more profit than I can by sending a proportion of it down to the creamery to be made into buttermilk and fed likely to the creamery man's hogs.

As soon as the cream is separated it is cooled to as low a temperature as the cooling facilities at hand permit us to reach. We use well water in cooling only. Afterwards the cream is placed in one large can, thoroughly stirred up and set in a small tank so arranged that the water pumped by the windmill passes through the cream tank before it reaches the stock trough. As the windmill is going pretty nearly all the time, and as the water is naturally pretty cool, we have no trouble in keeping cream in good condition for three days. We deliver the cream ourselves.

I would emphasize as the essential points in handling cream :

1. Be as cleanly as possible in every particular, in milking, handling the milk, separating it and caring for the cream.
2. Immediately after separating bring the cream to the lowest temperature you can and hold it at that temperature until delivery.
3. Never mix one skimming with the main body of cream until the freshly skimmed portion has been thoroughly cooled.

Alta.

Wm. Scott.

Cleanliness the First Essential

EDITOR FARMER'S ADVOCATE :

In caring for cream delivered to a creamery we find the following method has worked very satisfactorily to ourselves and creamery company:

Let it be understood that cleanliness is strictly essential for the good keeping of cream and that it must commence at the beginning of the work, i. e., in the stable or cow yard. Anyone who chooses can bed down and keep a stable clean, but many keep their cow yards in a disreputable condition. This can be avoided by making the yard larger than perhaps is necessary, and then when it gets dirty or muddy, if the cowkeeper will plow up the yard he will find he has a dry, clean place again. Then do not have the cattle in the same yard two years in succession. We have two corrals, which we use alternate years, planting potatoes in the vacant corral.

We are careful to see that the cow's udder is properly clean before commencing to milk. Proper cleanliness of utensils must also be attended to. We are particular in removing milk from stable as soon as possible, so as to prevent it absorbing odors.

Immediately after milking, the separating is done, in fact, we have the separator and milking going on at same time. As soon as cream is separated, it is put to cool in a vessel of cold water, then when animal heat has been driven off, and the cream is cool enough, we mix it with cream gathered at former milkings. In mixing two different lots of cream, care must be taken to stir sufficiently to mix the mass properly.

Our "store" cans are kept in a small, cool building, logs with a good sod roof) until creamery man calls for the cream. The cans are kept in two-half barrels, with a spout from one to the other, and a spout leading from one to the horse trough outside, so that every time any animal gets a drink, a fresh supply of water is run through these two-half barrels, thus changing the water around the cans several times a day. Our well, as a rule, has ice in until away late in July. We deliver our cream twice a week, Tuesdays and Fridays.

Man.

Korova.

Feeding a Dairy Herd

EDITOR FARMER'S ADVOCATE :

I run a large dairy farm and feed my milk cows in winter time with oat and barley sheaves. Now, which is the best state to cut the grain in for this purpose, thoroughly matured, green and have it ripen in the sheaves, or in the so-called milk state of the kernel? Besides green feed I use hay and sugar beets. What would make a well balanced ration out of these four substances, or is there anything essential missing that the milk cows ought to get in order to give highest results?

What is considered a balanced ration for an average milk cow in chemical terms and what percentage of these is considered in the different feeds?"

Man.

M. M.

The best time to cut grain for hay is when the plants have taken from the soil practically all the nutrients required for their growth, and before these nutrients have mostly been transferred to the seed. Experience shows that the proper time is when the seed is in the dough state. The proportion then of crude fiber to nutrients in the stalk is less than if cutting were longer delayed, while the proteids in the plant are in very nearly as large proportion as they will be when the seed is ripe.

Oat or barley hay, sugar beets and hay, we presume you mean wild hay, will give sufficient bulk and succulence, but a ration compounded from such feeds will be low in protein, and protein is the substance most needed for milk production. We would add bran to the feeds mentioned, and compound a ration for each cow in about the following proportions: Oat hay 12 pounds, wild hay 14 pounds, bran 10 pounds and sugar beets 30 pounds per day.

These quantities are for a thousand pound cow giving an average flow of milk. The nutritive ratio works out to one of protein, to seven of carbohydrates

proportions which experience in dairy cow feeding show to be very nearly correct for inducing the most economic production of milk. The quantity of protein is approximately 2.4 pounds which is very nearly the proportion per cow recommended by American authorities, though less than Europeans. A balanced ration is one in which the supply of each nutrient is in balance with the quantity of that nutrient that may be required by the animal in the elaboration of the particular product for which it may be fed. A balanced ration for a dairy cow is one that will supply the animal with what nutrients she requires for the formation of milk, in proportions that will make possible the utilization of all without undue loss.

The substance requiring most consideration in a ration is protein. It is the proportion which the protein materials of a ration bear to the starchy, or carbohydrate materials, that is taken to represent the nutritive ratio, which in the ration above cited was 1.7.

It is impossible to give the composition of the different feeds in the space at our disposal. It is the digestible nutrients in the feed that you are concerned in and for the feeds mentioned are as follows:

	Dry matter			
	per 100 Lbs.	Digestible Protein	Nutrients per 100 Lbs. Carbohy-	Ether Extract
Oat Fodder	37.8	2.6	18.9	1.0
Prairie Hay	94.4	3.7	43.6	0.9
Bran	88.1	12.2	39.2	2.7
Sugar Beets	13.5	1.1	10.2	0.1
		* * *		

An Iowa man has recently secured a patent on an apparatus designed to save labor in packing butter into tubs. It consists of a small rotary table to receive the tub, and arranged above the table are a number of plungers or packers with heavy weights attached thereto, and so arranged as to alternately move up and down. The table is also geared to rotate at the same time so that packers strike upon the butter at a different place on each movement. The packers and table are both geared together so that they may be operated by machinery, and the packers together with the frame, which supports them can be readily and easily elevated by means of a simple foot lever, so that the tub may be removed and replaced easily and readily.

POULTRY

Hatching Coops

EDITOR " FARMER'S ADVOCATE " :

In my experience raising chickens, I find it best to set the hen by herself in a coop large enough to feed in ; then she is not so likely to want to leave the eggs, or be interfered with by other " cluckers " or layers. For health and comfort, she should have light and air, but not cold drafts. I make the coop about 36 x 24 in., and 16 inches high, with closed top, and boards around bottom about 5 inches high ; nest, with fine straw or chaff, in one corner, say 10 x 12 inches. The rest of the coop is slatted, three of those in front side being movable, like bars, to put in feed and water regularly, as well as to put in the hen and eggs. Set the coop where it is light. Not having a convenient place in henhouse or on stable floor, I have several of these coops suspended with wires under ceiling, or fastened to stable walls near windows, and when the chicks are out will remove them to coops on the ground. The hens are never disturbed, and seem to enjoy very much their upper berths. A few light packing boxes that one can get at the grocery can easily be rigged up for coops such as described, and will save a lot of bother, and give good results at hatching time. We think that no stock on the farm pays us better than our hens.

That we like " THE FARMER'S ADVOCATE. " goes without saying, for we have been reading it regularly now for over a quarter of a century.

" PLYMOUTH ROCK. "

Care of the Laying Duck and Her Eggs

EDITOR " FARMER'S ADVOCATE " :

Many farmers complain each year of having lost a large number of eggs, owing to the fact that the ducks, having wandered away through the day, following ditches and water-runs, and even creeks and rivers, failed to return at night, and so the eggs were laid astray; while others keep their ducks confined so as to prevent them laying astray, and often complain of the infertility of the eggs from ducks so treated. Now, the laying ducks should have free range, when possible, and as many as seven may be mated to one male. Always shut your ducks in the henhouse, or wherever you want them to lay, every evening, and give them a small feed of grain. During the early part of the laying season the ducks do not wander far, and so will be easily hunted up

and housed. The first eggs of the season are laid quite early in the morning. After laying, the ducks may be let out as soon as possible, when they do not need much feed. Always feed about the same time in the evening, and you will find that the ducks will be on hand almost to the minute, as there is no fowl with a keener instinct with regard to meal time than ducks.

The eggs should be gathered every morning, packed in bran, with the small end down, and kept in a cool (not cold) room. Do not keep the eggs any longer than you can possibly help, as best results are obtained when the eggs are set while fresh. Either set them under hen or in an incubator. Do not wait for the ducks to become broody, as they (especially young ones) do not make good sitters, and often prove to be poor mothers.

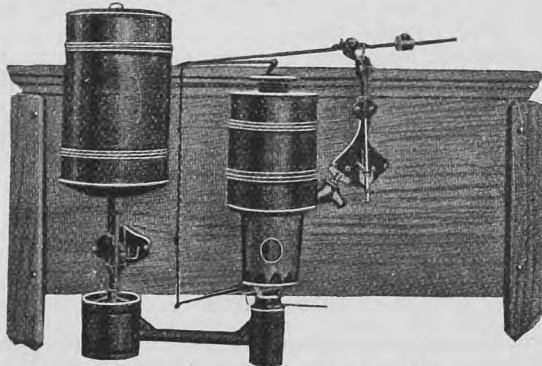
" EXPERIENCED QUACK. "

Incubator Lamps that have Made Good

EDITOR FARMER'S ADVOCATE :

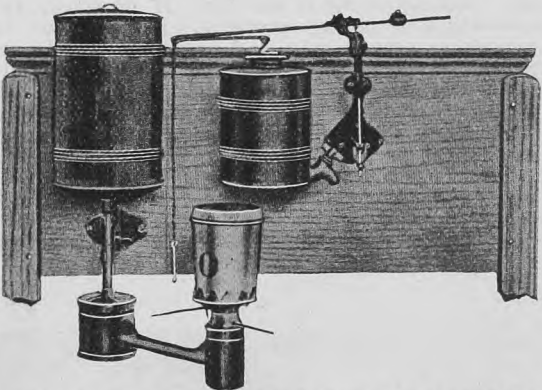
In reply to enquiries for further particulars of the incubator lamp referred to in my article published in the ADVOCATE of March 24th, I am enclosing a cut of the lamp and regulator. This cut will show how the lamp is arranged to be attached to any incubator that has a boiler or other heating device at the end. To attach the lamp to an incubator that is heated from below like the Chatham the only change necessary to make in the lamp is—the feed pipe from the reservoir to the float valve chamber, and the chain from the damper arm to the trip lever has to be some eighteen inches longer than the one shown in the cut.

Without showing a picture of the lamp it would be rather a hard matter to describe it in a way that



LAMP IN PLACE HEATING BOILER.

would be understood by anyone who has never seen the lamp. I may say, however, chief among the many superior points about this lamp are, first, the reservoir holds a full gallon and is very easily filled. Second, there is always the same amount of oil in the wick chamber, thus causing a flame of uniform size at all times regardless of the amount of oil in the lamp, so long as there is any in the reservoir. That is one reason why the wick does not burn or char. The wick in any lamp would be a very long time burning if the lamp could always be kept full of oil. It is only as the oil gets lower in a lamp that the wick burns. A lamp wick is, or should be, a conductor for the oil only, not to burn itself. Then the wick of these lamps are chemically treated so that they do



LAMP SWUNG OUT TO BE CLEANED AND ADJUSTED.

not burn, even if the lamp is neglected. The only trouble with these lamps is, there is more or less foreign matter in the oil, at least any I have been able to get. This matter is carried up the wick with the oil, and as it does not burn it naturally collects on the wick and in time will retard the flame, and if let go long enough will in time put the flame entirely out. It is necessary, therefore, to clean the end of the wick. (I find a sharp knife the best thing to use), when it needs it once in three or four days, depending on the purity of the oil. These lamps and regulators entirely do away with the trouble so many of your subscribers tell about having with their incubators. The price of the regulator is \$2.25. Price of lamp compact is \$3.00.

The lamp and regulators are manufactured by The H. M. Sheer Co., Quincy, Illinois.

Sask.

G. A. CAMERON.

HORTICULTURE

Grass for Tennis Ground

A Manitoba enquirer writes :

"We are starting a tennis court here and have the land ready, what grass seed would you recommend for this purpose?"

A lawn tennis court requires very careful management for the best results.

The game is somewhat hard on all varieties of grasses and a tennis court can only be kept up by exercising great care in making and handling afterwards.

First see that the soil is a rich black loam capable of holding moisture well. The subsoil should also be fairly good, then make the court perfectly level and seed it down with the following mixture: 50 per cent. Western rye grass seed, 12½ per cent. of Kentucky Blue, 12½ per cent. Canadian Blue and 25 per cent. of mixed Fescue. All these grasses can be purchased from leading seedsmen. You will require about 40 pounds per acre of this mixture, and it should be sown in two or three directions so as to make an even growth, then harrow well.

It is advisable to keep a small supply of this mixture on hand to use on any bare spots that may appear from time to time, simply sow the seed on the bare spots, cover with a sprinkling of black loam soil and then rake in, this will keep the court in good shape.

You will, of course, require to water the court frequently. This should be done early in the morning or late in the evening and should not be trampled on until somewhat dried, otherwise it may cake and injure the grass. The seed can be sown at any time, but spring is preferable.

M. A. C.

S. A. BEDFORD.

The Growing of Radishes, Lettuce and Cress

Last week the culture of onions was dealt with. Onions are almost the earliest vegetables we have that enter into the composition of many fine spring salads. Later on we relish the dishes that are composed of radishes, lettuce and cress. These three, easily grown vegetables, are the most indispensable of our salad plants. They may all be sown as soon as the ground is thawed out enough to work. If the spring is cool, but still warm enough for plants to grow, the cress will be ready first for the table. The radishes may grow slowly. If they do, then they are almost sure to be tough, and rather hot. If, however, the weather is warm enough for rapid growth, the early radishes will be fit for use in from three to four weeks.

In sowing, observe the rule previously mentioned; plant the seeds in long drills; water *before* covering; and cover to a depth four times the thickness of the seed. The drills should be one foot apart, and the seed of radishes should be sown thinly, so that each plant will have light and air. If crowded, the roots will not develop properly. Lettuce may be sown either very thickly, and used when the leaves are only two inches high, or it may be sown sparingly and the plants left to form heads. If sown rather thickly at first, the young plants may be thinned out for use, gradually increasing the distance between those left in the rows, until the plants stand nearly a foot apart. Fine heads should develop in this way. Cress should be sown very thickly, so that when it is large enough for eating, a sharp knife may be held in one hand, the cress grasped in the other, and the row be shorn off evenly from one end. In this way I

have gathered large quantities of this tender, tasty vegetable for market in a very short time. It is much easier than picking the leaves with the fingers, as many do.

Radishes should be sown every week after the first sowing comes up. A short row, say four yards long, will, if successful, produce a sufficient number of radishes for a small family, until the next row is ready a week later. In this way old, tough radishes need not appear on the table. Sometimes worms will destroy a large percentage of the radishes. There are two kinds that infest our radish beds commonly. One is yellow in color, hard and wiry. It is the yellow wire-worm. The other is the small white maggot. Both of these pests may be prevented to a large extent by sowing a mixture of salt and wood ashes on the ground when the seed is sown. It is best to apply it just before making the drills. After the plants start to grow, sprinkling freely with saltpetre, one tablespoonful of saltpetre to one gallon of water is helpful. Radishes should be cultivated freely and often.

Lettuce need not be sown so often. Once in three or even four weeks is sufficient for home use. The wire worms and cut worms sometimes kill the young lettuce plants. No other insect touches them; and as only a few plants will generally be destroyed, it is not necessary to fight the pest except by a liberal sprinkling of ashes and salt at sowing time. If cut worms appear in large numbers, go out after the birds have gone to sleep. Sow broadcast over all the garden the following for the worms:—To four gallons of dry bran add one teaspoonful (even-full, not heaped up) of Paris green, one cupful brown sugar, and sufficient water to make the Paris green stick to the bran. In the night, which is the time all sensible cut worms do their deadly work, the bran will be eagerly eaten by them. As Paris green is a deadly poison, no more trouble will result from cut worms.

Cress may be sown once in two weeks, or a smaller quantity once a week, as preferred. In hot dry weather it goes to seed rapidly. The leaves become tough as soon as the flower stalks grow up. It is best to allow a small row to flower and ripen seed. It is very little trouble to gather the seed. Just as soon as the seed is ripe, cut the stalks and place them heads down in cotton bags. Then beat with a stick. The seeds are small and may readily be sifted out from the chaff by means of a piece of wire mosquito netting. Allow these to dry thoroughly. It is the most satisfactory way of obtaining seeds of cress.

As a rule I would not recommend raising seeds at home. Only a few of our vegetables are worth the trouble, as some of them are so hard to gather. The subject of home-grown garden seeds is one worthy of discussion by itself. I will not enter further into the matter at present.

Sask.

BRENDA E. NEVILLE.

FIELD NOTES

Events of the Week

CANADIAN

Navigation opened at Montreal on May 1st.

* * *

Hon. William Jennings Bryan made a short lecturing trip through the West last week, speaking at Winnipeg and Brandon.

* * *

W. L. McKenzie King, representative of this country at the opium conference held recently in China, has returned, and it is expected, will shortly be appointed Minister of Labor.

* * *

Bush fires last week south of Sicamous, east to Three Valley and down to Vernon, destroyed hundreds of thousands of dollars' worth of property, wiped out saw mills, farm and ranch buildings and burned out the little town of Westly, west of Nelson.

After a chase across two continents and after dogging their man from city to city in Europe, two Pinkerton detectives arrived in Winnipeg the other day, having in charge Paul F. Lessar, who is wanted in that city for stealing \$2,500 from his employer.

* * *

The railway companies are raising decided objections to the recent order of the Railway Commission, that rights of way in the West should be fenced and improved cattle guards and farm crossings provided. The railways contend that the order is altogether too drastic. The case is being argued before the Commission, Ottawa.

BRITISH AND FOREIGN

Joseph Martin, the Canadian candidate of the Liberal party in the bye-election at Stratford-on-Avon, was defeated by a large majority by the Unionist.

* * *

The first report from the Roosevelt camp, somewhere near Nairobi, British East Africa, has been received. The ex-president brought in four lions as his share of the first day's bag.

* * *

The British Budget was carried in the House of Commons by a majority of 107. In view of the unusual nature of this year's budget, it was expected that the government's majority might be reduced below the hundred mark.

* * *

The second annual peace congress was in session last week in Chicago. Prominent speakers were present from all parts of the world. Unbounded optimism was the feature of the meeting. While Governments of all civilized countries seem to be straining every resource they have to increase their armaments, the peace conference delegates spoke hopefully of obligatory international arbitration being realized within the next few years.

* * *

Ex-president Castro, of Venezuela, the king without a throne, is still stalled in Europe unable to get passage to his native land. Since Castro left Venezuela last fall, to take medical treatment in Europe, his fellow countrymen have installed a new chief executive over them and Castro is not required. He has made several attempts to take passage home, but has never managed to reach his destination. He is now being held as a sort of prisoner in France.

* * *

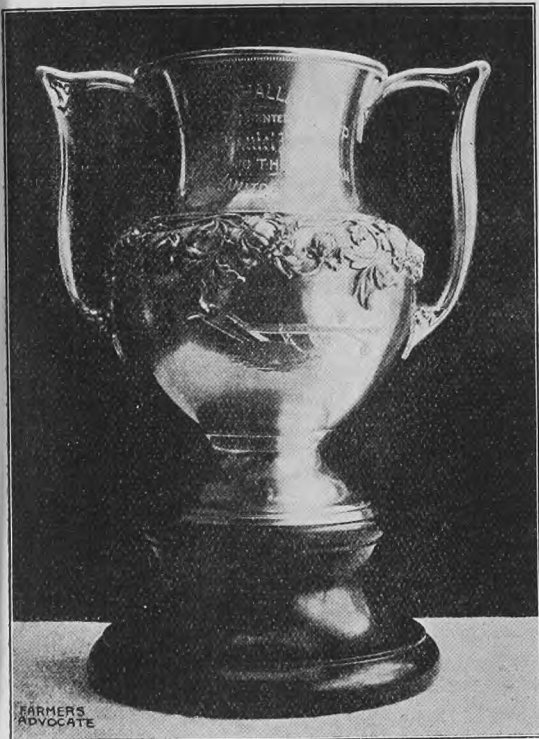
An election is on in Newfoundland. There was an election less than a year ago resulting in a tie, so another is being held to break the dead lock. The one in progress is being fought out with a bitterness never before witnessed in a political campaign on this island. Ex-premier Sir Robert Bond is alleged to be connected with a plot to bring Newfoundland into the Canadian confederation, and the islanders are aroused over the matter that the other day when Sir Robert was addressing a party of fishermen at a port the crowd chased him off the end of the wharf he was speaking on, and into the sea. The islanders, evidently are seriously opposed to confederation.

Things to Remember

Pure-bred Cattle Sale, Brandon, May 27.
Pure-bred Cattle Sale, Lacombe, June 2.
Dispersion Sale of "Forest Home," A. Graham Pomeroy, Manitoba, June 2.
Winnipeg Horse Show, June 24-25-26.
Provincial Plowing Match, Carroll, Man., June 1.
Provincial Exhibition, Calgary, July 5-10.
Portage Exhibition, July 6, 7, 8 and 9.
Winnipeg Industrial Exhibition, July 7-17.
Brandon Exhibition, July 19-23.
Highland Society's Show, Sterling, July 20-23.
Provincial Exhibition, Regina, July 27, 28, 29, 30.
Neepawa Exhibition, June 30, July 1-2.
Central Saskatchewan Exhibition, Saskatoon, August 3-6.



A CORNER OF MRS. LOWE'S ORCHARD KEREMEOS, B. C., AT THE EXTREME SOUTHERN END OF THE OKANAGAN.



THE MCMILLAN CHALLENGE CUP FOR MANITOBA
PLOWMEN NOW HELD BY JOHN TURNER OF
CARROLL, MAN.

Provincial Plowing Match

The third annual Plowing Match under the auspices of the Carroll Association will be held on the farm of Andrew Turner Carroll on Wednesday, June 16th. Classes will be open for gang and walking plows, and also the Provincial championship with which goes Lieut.-Gov. McMillan's championship cup. Competitors for the cup must be members of Farmers' Institutes, Agricultural Societies or other farmers' associations in the province of Manitoba who hold annual plowing matches. Entries for outside competitors for this cup must be in the hands of the secretary at least one week previous to the date of the match. For rules and regulations, score cards, etc., for the above match apply Fred H. Carroll, Secretary-Treasurer Carroll Association.

Second Annual Horse Show at Vancouver

Vancouver's second annual Spring Horse Show commanded the individual attention of the coast cities for three days, ending April 23rd. The show was held in the commodious new amphitheatre just completed in time for the event, and the seating capacity of our 3,000 was barely ample to accommodate the crowds. They appreciate horses on the coast. The provincial government assists the show financially as does Alberta, and what is of more assistance the towns people talk and work for it.

Vancouver is fortunate in being able to attract exhibitors from neighboring cities, Westminster, Victoria, Spokane, Seattle and Tacoma all sent their contingents. This patronage of the show by outsiders naturally creates considerable rivalry and stimulates interest in the exhibits, besides furnishing an opportunity to extend and accept hospitality.

After more horse shows some particular incidents stand out prominently in the minds of those associated in any capacity with the event. The incident of this year's Vancouver show was the protest on the part of some of the exhibitors against certain of the awards, alleging collusion between the judge of the harness classes, Mr. Orson Moulton, of Batavia, N. Y., and the manager of the show, who was also a visitor. The protest, although afterwards withdrawn, serves to call attention to a flagrant ignoring of public confidence and trust. The manager of the show, it seems, was instrumental in securing the judge, and the judge, as every one knows, favors the type of horse handled by a certain firm of Toronto horse dealers; then the manager secured a string of show horses from the Toronto firm. The results were not disappointing to the manager, nor the dealers, but decidedly suspicious looking to the other exhibitors and the spectators. Such incidents should not be allowed to arise.

As for the horses, Mrs. J. W. Considine had a most sensational string, including Quaker Maid and Dorothea, a pair of 15.2 harness horses, winners in New York, and the saddle horse Tsar. These were taken West last fall and were considered safe to win at Vancouver, but a string taken out this spring and sold to W. S. Holland, including Shamrock and Thistle 15.3, lowered their colors on several occasions. Miss Baker, of Tacoma, made a good showing and several local exhibitors got within the money, particularly in the saddle, hunter, pony, breeding and heavy draft classes.

The champion harness horse of the show was adjudged to be Shamrock, reserve Quaker Maid, and the champion saddle horse was Tsar; reserve, Highland Gaines (Miss Baker).

The manager and secretary of the show is W. S. Holland, Vancouver.

* * *

Australia is said to have the largest duck farm and the largest incubator in the world. The incubator has a capacity of 11,440 ducks' eggs or 14,080 hens' eggs. The machine is in fact a hot-house. It stands in open ground and is constructed of ordinary pine boards, with corrugated iron roof. The egg trays each hold 130 ducks' eggs or 160 hens' eggs, and there are four of these end to end in eleven tier one above the other one each side of the room, making a total of eighty-eight.

MARKETS

The wheat market for the past week has been an active but rather erratic one. In United States markets new records were made for the cereal. In this country and in Europe there was scarcely as much to stimulate activity as in American exchanges. There the returns of Patten from his Colorado ranch was regarded as an indication of something likely to happen and what happened was a spurt upwards in values.

The week opened with stronger continental cables. The report was current that unfavorable weather in Germany and Europe generally, was hammering prospects. This, with the backward conditions prevailing over most of America was regarded by bull operators as sufficient ground for boosting values a bit. In addition, American visible for the week had decreased 1,614,000. The only thing, bears had to console themselves with, was the large shipments from Russia. The conditions, from the standpoint of supply were all indicative of better values. Consequently, European markets reflected the change noticeable in the opening markets in America and wheat for the first week in May was off to a rising start.

One feature of the wheat market that is strongly favorable to continually advancing prices is the bullish sentiment that everywhere prevails. News and rumors of all kinds, that at any other time would pass for little, are seized by energetic bull operators and played for their affect on the market. And the influence which almost any kind of news exerts, is astonishing. Bull sentiment was by no means dissipated by the upturn in the May option. It applies to all lines and just now is beginning to appear strong in July. Rumor has it that a coup in July wheat may be engineered by the same parties who went along so profitably on the May option. At any rate lines of July wheat are being quietly acquired in all the American exchanges and it would surprise no one if a good profit were not earned on investments in that option even at present prices, which may appear a little high.

Meanwhile the condition of the American winter wheat crop remains in doubt. Reports contradictory in nature are circulated concerning conditions in the fall wheat country of the West and southwest. Some sections are said by some reports to be seriously affected by drought and other observers report them up to average. Spring wheat has gone into the soil in none too favorable circumstances, both in the Northwestern States and Canadian West, with prospects so far as seeding can indicate, of none too good returns. The winter wheat crop in America hangs on conditions in Kansas, and in that state a drought is the bull prediction. There is a general belief that the southwest is suffering some from rain. Were something not putting a damper on prospects more July wheat from that quarter would be selling.

Conditions in other parts of the world, and from those sections mentioned in Europe and America, continue unchanged. The Argentine is falling down seriously as a shipper and Broomhall estimates a still larger decrease in shipments from that quarter during the next three weeks. Russia is selling heavily, but this feature of the situation is not taken to indicate anything.

On May 7th the United States government report was issued. It was sensationally bullish in tone. The condition of winter all over the country is given as 83.5 as compared with 82 a month ago, the acreage left is placed at 27,871,007 acres. The area abandoned is 811 per cent., as against 4.2 per cent. abandoned a year ago. The estimated returns from the acreage remaining is 401,000,000 bushels. The spring plowing completed is given as 64.1 per cent., as compared with 66.6 per cent., May 1, 1908. The report was bullish in the extreme, yet in a good many particulars not any more so than the conditions warrant. It is doubtful if the estimated area abandoned is as high as it actually is, or as great as the acreage that was sown to wheat last fall that will have to be re-sown. On the strength of the bullish sentiment all markets advanced sharply. The July option in Winnipeg made a new mark running up to 126½. In Chicago things were rather wild for a time after the report was posted. Prices for the week in Winnipeg for wheat and other grains have been as follows :

	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
No. 1 North-ern	121½	123½	123½	124½	124½	123½
No. 2 North-ern	118½	120½	120½	121½	121½	120½
No. 3 North-ern	116½	118½	118½	119½	120½	118½
No. 4	111	112½	112½	115½	113½	112½
No. 5	103½	105	104½	106	106½	105
No. 6	93	94	93½	94½	93	92
Feed	90	90	89½	87	89	88
No. 1 Alber-ta Red	119½	120½	120½	121½	121½	121½
Oats—						
No. 2 White	44½	44½	44½	45½	45½	45½
No. 3 White	43½	43½	43½	44	44	44½
Feed	43½	43½	44	44½	44½	44½
Feed 2	42½	42½	43	43½	43½	43½
Barley—						
No. 3	58	58	58	58½	58½	58½
No. 4	56	56	56½	56½	56½	56½
Feed	49½	50	50	50	50	50
Flax—						
No. 1 N. W.	138	138	138½	138	137	137
No. 1 Man.	136	136	136½	136	135	135

OPTION MARKET

	Monday—	Open	High	Low	Close
May		121	121½	120½	121½
July		121½	122½	121	122½
Oct.		104½	104½	103½	104
Tuesday					
May		121½	123½	121	123½
July		122½	124½	121½	124½
Oct.		104½	105½	104½	105½
Wednesday—					
May		123½	124½	123½	123½
July		125½	125½	123½	124
Oct.		106	106½	105	105
Thursday—					
May		124½	124½	124½	124½
July		125½	125½	125	125½
Oct.		106½	106½	105½	106½
Friday—					
May		124	124½	122½	124½
July		124½	126½	123½	126
Oct.		106½	107½	105½	107½
Saturday—					
May		122½	123½	122½	123½
July		124½	124½	124½	124½
Oct.		107	107	106½	106½

PRODUCE AND MILL FEED

Bran	\$21.00	to	\$22.00
Shorts	22.00	to	23.00
Chopped Feeds—			
Barley and oats			27.00
Barley			26.00
Oats			28.00
Hay, per ton, car on track,			
Winnipeg, (prairie hay)	9.50	to	10.00
Timothy	10.00	to	12.00
Baled straw	5.00	to	6.00

BUTTER AND EGGS

Fresh turned creamery bricks	24	to	25
DAIRY BUTTER—			
Extra fancy dairy prints	20	to	21
Dairy in tubs	14	to	16

EGGS—

Manitoba fresh			18
POULTRY—			
Turkey, Manitoba			20
Turkey, fine Ontario (undrawn and case weight)			20
Spring chicken, per lb.			18
Ducks, per lb.			17
Geese, per lb.			16

VEGETABLES—

Potatoes, per bushel	95	to	1.00
Carrots, per cwt.			1.50
Beets, per cwt.			1.25
Turnips, per cwt.	50	to	75
Cabbage, per cwt.	4.00	to	4.50
Onions, per cwt.	2.75	to	3.00
Parsnips, per cwt.	2.00	to	2.50
B. C. onions, per case, 95 lbs. net			3.00

LIVE-STOCK, WINNIPEG

The movement of livestock at the yards is not brisk. Offerings are not keeping up with the expectations of a few weeks ago. Demand is good and prices offered are fair. Export steers are quoted at \$5.80; this is for steers running from 1300 pounds up, and good ones at that. Butcher cattle have sold as high as \$5.00, but the bulk go at \$4.50. Sheep are not being marketed but the quotation stands at \$6.50 for ewes. Hogs are selling at \$7.25 for select stock and \$7.00 for the average run, from that down to \$6.00 for lights and fats. The hog market looks strong.

TORONTO

Export steers, \$5.50 to \$6.00; export bulls, \$4.25 to \$5.00; picked butchers, \$5.30 to \$5.50; medium, \$4.75 to \$5.00; common, \$4.25 to \$4.65; cows, \$3.50 to \$4.75; bulls, \$4.00 to \$4.25; hogs, \$7.40; sheep, \$4.50 to \$5.25; rams, \$3.50 to \$4.25; lambs, \$7.25 to \$8.00.

CHICAGO

Export steers, 1,275 to 1400 pounds, \$6.15 to \$6.60; export steers, 1150 to 1250 pounds, \$5.70 to \$6.00; Western steers, \$5.75 to \$6.90; beef cows, \$3.40 to \$5.00; heifers, \$3.15 to \$6.25; bulls, \$4.50 to \$4.75; sheep, \$3.00 to \$6.60; rams, \$4.00 to \$5.00; hogs, \$6.85 to \$7.35.

HOME JOURNAL

A Department for the Family

People and Things the World Over

Miss Edith Miller, the sweet singer of Manitoba, of whom all Canadians are justly proud, is making a very successful tour through the Dominion, after winning honors abroad and singing before our King and Queen.

* * *

The Y. W. C. A. of Winnipeg held "Tag-Day" on the first of May and collected over \$10,000 towards the equipment of their fine new building. A debt of \$15,000 is all that now remains against the institution.

* * *

Boston believes in beginning in time. Preparations are already being made to commemorate, in 1920, the landing of the Pilgrim Fathers at Plymouth Rock nearly three hundred years ago.

* * *

A stone tablet has been fixed by the London County Council in the roadway at the junction of Edgware-road, Oxford Street, and Bayswater Road, to mark the spot where stood the famous Tyburn Tree on which Dick Turpin was executed.

* * *

Every woman of every suffrage league in the Republic will give Julia Ward Howe a birthday party on May 27, when she will be 90 years old. Tuesday has been set aside as petition day and will be devoted to gathering signatures to the monster petition for votes for women to be presented to congress at the next session.

* * *

It is not growing like a tree,
In bulk, doth make men better be;
Or standing long an oak, three hundred year,
To fall at last a log, dry, bald, and sere.

A lily of a day
Is fairer far in May;
Although it fall and die that night,
It was the plant and flower of light.
In small proportions we just beauties see,
And in small measures life may perfect be.

BEN JONSON.

A Practical Charity

The large majorities of clubs and societies are organized for some worthy object, and the high aim of the association is embodied in the constitution. Too often it remains there an elegant abstraction that is not reduced to the concrete by united action of the members. It is noticeable that Western Canadian societies do not err very excessively in this respect, perhaps because most people are so busy that there is no time to form and attend societies that have not been organized to meet some special need.

The Mothers' Association of Winnipeg is a good example of the Western society. Some mothers saw that to develop properly, the child-citizens of the city needed places to play in, and in parts of the city there were no such places. They organized to obtain public, supervised playgrounds for the children, and they got them last year. This year the cry of the little children whose mothers are compelled to leave them at home while they go out to earn their bread, came to these more fortunate mothers' ears. The result is a day nursery in the heart of the district that needs it most. The house has been thoroughly cleaned and furnished simply but prettily and a trained children's nurse has been put in charge. Here women can bring their babies in the morning and leave them until night for ten cents. The child is given a bath, put into clean clothes and given the day's meals. There are playthings for the older ones and cots for the wee ones, and there they are perfectly safe and happy all day, instead of being lonely, hungry and dirty at home.

Bryan's Message to Canada

The following extracts are from a lecture, "The Prince of Peace," delivered in Winnipeg by William Jennings Bryan, the great American orator and statesman. Great crowds gathered to hear the man who, no matter how much they may disagree with him politically, has won respect and admiration for his sincerity and the uprightness of his speech and life.

"Religion is not superstition. It does not rest upon fear of the unseen in nature. It rests upon that inward feeling we all have that, in all that we do and are, we come far short of what we ought to do and be. In our finiteness, we look to the Infinite; in our sinfulness, we look to the Sinless. We know that passion, with ourselves, can dethrone reason.

"The man who follows public opinion will live up to it if that opinion be above him, and down to it if the opinion is beneath him. Let us not take public opinion for our standard. If we would rise we must keep our moral sense ever fresh, clear-cut and strong. Many a failure in life is traceable to a break-down in morals. Let us keep firm our faith in Christ; for, if the Christian have doubts and fears, the unbeliever has more doubts and more fears.

"The days a young man spends in college are the most critical days of his life. He feels stronger then than he ever feels afterwards; and in those days, he thinks he knows more than he ever finds out afterwards he does not know. When I was young I freely admit that, like all the rest of the young, I was inclined to be an agnostic. I took the Scriptures. I turned to the first Chapter of Genesis; there, I found a passage running thus: 'God created the heavens and the earth.'

"Friends, on that I took my stand. I said, 'God created the heavens and the earth. Until I find a better explanation of the creation, I will stick to that.' I found that all those who seek to explain the origin of things must assume the existence of two things to begin with—matter and force. Whence came they? Why should force have commenced to act upon matter? I had my answer, which the evolutionists had not. It was, 'God created the heavens and the earth.' Friends, the Christian starts with God.

"I once wrote a letter to Col. Ingersoll, asking him for his reasons for denying the existence of God. In reply, I received a copy of one of his lectures, with the recurring passage 'I do not deny. I do not affirm. I do not know.' Friends, what could it profit a great man to take from other men their beliefs, substituting that dark utterance, that hopeless utterance: 'I do not know?' The Christian's attitude towards his Prince is finely set forth in that poem of William Cullen Bryant 'To a Waterfowl.' He says, in the closing verse, addressing the bird flying toward the sunset:

'He, who from zone to zone,
Guides through the boundless sky thy certain flight,

In the long way that I must tread alone,
Will lead my steps aright.'

"Friends," said the great orator, in conclusion, dropping his voice to a low, earnest tone of exhortation, "Christ, the Prince of Peace, has given us a platform, to be used for all time by us, as servants of the greater world: 'Thou shalt love thy neighbor as thyself.'

"How many of us understand the chemistry of the vegetables upon our breakfast table—yet how many of us say 'I must understand the origin of that vegetable before I accept it?' If we did that we would starve, for who can comprehend the mystery of plant growth? But we do not say it; we eat and are content. Mystery does not bother us in the dining room—only in the church. I took a seed from a watermelon and examined it. I reflected how, if planted, that seed would

take off its little brown coat and go to work and gather some few hundred other seeds, building them up into another watermelon. How does that little seed build up the watermelon—who can explain? Friends, be sure you can explain the wonder of the watermelon plant before you essay to explain the limits of the Almighty.

"During a tour of the world I observed how universal a food is the egg. One little egg makes the whole world kin. A fresh egg has a market value. Yet, take an ordinary hen and let her warm that egg against her breast for a week, and the market value will be materially decreased—for two more weeks, and lo! we are given a tiny chicken you could never have found in the egg. Here is another mystery—the great mystery of birth.

"Christ gave us the most familiar doctrine that we know—the doctrine that one can suffer for others. Each generation suffers for the generation that is to follow. There is no step in human progress that has not, back of it, sacrifice—the sacrifice of one for others. The man who has no higher ambition than to save his own life, lives a narrow, little life. By devotion to things larger than ourselves we win immortality. Christ's love was so large that it took in, not his own family, not his own kindred, but all mankind.

"There are men moving in their own narrow circle, who think of nothing but the attainment of wealth. They spend the first half of their life trying to get money from others, the second half trying to keep those others from getting the money back. The attainment of wealth, the attainment of worldly honors, whether those honors come by inheritance, as in monarchies, or by ballot, as in republics, cannot bring peace. The divine measure of a human life is its outflow, its contribution to the growth of the world. Christ, because he taught us how to live this life, deserves to be called the Prince of Peace."

Further Developments in Turkey

For thirty years Abd-ul Hamid has made Turkey one long scene of violence and bloodshed and a symbol of horror to the nations of the world. It came to be regarded as certain that if a change ever came it must be through some outside agency, but the outside agencies capable of doing it, the nations of Europe, could never agree on the means by which Turkey should be relieved by the oppression of a cruel tyrant, and nothing was done.

But isolated and repressed as was the country under this ruler, all his restrictions and punishments could not prevent the young men from learning of the struggle for liberty going on among the present generation in other lands and of the success that was waiting upon their efforts. The spirit of freedom was in the air and the Young Turks, caught by it, prepared for the grim struggle that they were resolved should end in victory.

It would seem as if the aim has been realized. The latest dispatches tell that the Sultan has been disposed and his life is threatened by the extremists who see no reason why he should not go to the violent death to which he sent so many men who merited it less. The cowardice of the real tyrant is showing itself in his pleading for clemency. He declares that he has never harmed anybody and for thirty years has done nothing but good. His successor will be his brother, Mohammed Reschad who has been a prisoner for twenty-five years by the late Sultan's orders. He says that even in captivity he has tried to keep in touch with the progress of national life and feeling, and has advocated constitutional government for Turkey. He is a firm supporter of the policy of the Young Turk party and sees nothing incompatible with Mohammedanism in the enjoyment of political freedom.

THE QUIET HOUR

THE POWER OF A VISION

Your young men shall see Visions.—
Acts 2: 18.

"Thought in the mind hath made us.
What we are
By thought was wrought and built.
If a man's mind
Hath evil thoughts, pain comes on
him as comes
The wheel the ox behind
If one endure
In purity of thought, joy follows him
As his own shadow—sure."

James Allen, in his recently-published book, "As a Man Thinketh," says: "The Vision that you glorify in your mind, the Ideal that you enthroned in your heart—this you will build your life by, this you will become."

We hear a great deal about "New Thought" in these days, and people are marvelling over the power of thought, as though it were a new thing. But in reality, it is infinitely old, for out of God's Thought all things have proceeded. David seems to have realized the power of thought when, in his great public thanksgiving prayer, he says: "O, LORD God. . . keep this for ever in the imagination of the thoughts of the heart of Thy people."

Our Lord was preaching the power of thought when He offended the Pharisees by saying to the multitude: "Not that which goeth into the mouth defileth a man; but that which cometh out of the mouth, this defileth a man." His explanation to the wondering disciples was: "Those things which proceed out of the mouth come forth from the heart; and they defile the man. For out of the heart proceed evil thoughts."

The prophet Micah is preaching the power of thought when he says: "Woe to them that devise iniquity, and work evil upon their beds. When the morning is light, they practise it, because it is in the secret of their hand."

We want to look at the other side of the matter to-day, and begin to see the power for good of a vision.

We have lately been reading the wonderful story of T. A. Edison's many experiments along the line of electricity.

It is easy to say that "he was a great genius, and, of course, his great powers must find outlet"; but it would be more true to say the boy who spent every hour in experimenting with batteries and amateur telegraph naturally developed into the man who spent every cent he could on his workshop and machinery, and deprived himself of needful sleep in order to work out his vision.

The money he received for his experiments was poured out lavishly in the purchase of electrical apparatus. He could submit to discouragement or own self-beaten, but fought on until he was victor. It is said that his year of heart-breaking experimenting, trying to work out his vision of incandescent electric light, required an incalculable application of persistence.

W. W. Atkinson says: "In order to give you an idea of what this experimenting cost, it is stated that the cost of the materials for the experiments, from all parts of the world, from South America, China, Japan, Burmah, India, and many other places, was fully one hundred thousand dollars. There were about fifteen hundred species of bamboo known to science, and Edison secured a sample of every one of these. Nearly ten thousand samples of bamboo were experimented with before the first dozen perfect varieties were secured. And then, the light being perceived, Edison undertook the formidable task of inventing the proper dynamos and machinery to run a

large plant. He succeeded, of course—it's a way he has."

Of course he succeeded! It is certainly true that in all human affairs "there are efforts, and there are results, and the strength of the effort is the measure of the result." A man who never loses sight of his Vision, never tires in his pursuit of his object, is bound to succeed. Failures are used as stepping-stones on which he may climb to success; because every time he fails he learns to know his own weak places, and his determined purpose to win makes him doubly careful where he knows he is weak.

No one has time to devote himself thoroughly in a dozen different directions. In fact, no one who intends to live life enthusiastically can afford to waste energy by attempting the impossible feat of serving two masters; for he will surely find that he is holding to the one and despising the other. Of course, that does not mean that a man can't be an enthusiastic Christian, and at the same time an enthusiast on the subject of electricity.

But the ruling ideal must dominate all lesser ideals; and, if they ever clash, the lesser ideals must infallibly go to the wall. Surely that is what our Lord means by His hard saying: "If any man come to Me, and hate not his father, and mother, and wife, and children, and brethren, and sisters, yea, and his own life also, he cannot be My disciple." Of course, He who lays down "love" as the fulfilling of the whole duty of man, cannot command His followers to "hate" their nearest and dearest.

It is poor Christianity to "love your enemies" and fail in love to your own family. But the love that Christ demands is so dominant that all other affection must bow before it; just as the love for one's own life must be sacrificed at the imperative call of Duty. When a man must choose evil deliberately, or yield his life as a forfeit, the sum total of his whole past life decides which course he will take. But—

"'Tis man's perdition to be safe,
When for the truth he ought to die."

If your Vision is a high one, and yet you feel that you are drifting away from it, rather than seeing it more clearly as the years roll on, it is very plain that you "did not want it hard enough." It is certainly true that everything really great which man has accomplished "has been attained largely by reason of the possession of the ardent, burning flame of desire that, acting on the water of thought in the boiler of the mind, produces the steam of will and action. . . . Without desire the world would never advance an inch."

The young men and women "see Visions"; but, if they don't care enough about winning them to press steadily towards the goal of their ambition, the Visions will fade away. A few minutes ago I received a letter from one of our readers, who says: "I am easily discouraged, I fear. I used to enjoy Christ's presence every moment in my youthful days, but cares distract and doubt enters. Things do not seem to be what they used to be." She says that in speaking to an acquaintance about her loss of happiness in her religion, she was told that "then" she had been "young and happy" and influenced by one she loved, but that happiness would not last when she faced the "sterner realities of life." What a bit of discouraging information—that was, to be sure! My dear "Anxious Mother," I can't take up all your questions to-day—being in the middle of my weekly chat when your letter was brought to me—but at least I can assure you that the Vision of the Master's Face need not fade out of our horizon. I am preparing a book

on that subject, hoping to publish it very shortly, which may help to set your mind at rest on that point.

The beauty of the Vision attracts the beauty-loving eyes of the young. Then, if "desire" hardens into steady purpose, the soul fights on in spite of many falls, and the Vision grows steadily brighter. The path of the just is as the shining light, "that shineth more and more unto the perfect day," when we shall no longer see our Master dimly, in a vision, but "face to face." They who are untiring in their search will certainly find.

"Seek JESUS in all things, and in all shalt thou find JESUS."

It is not enough to "see visions." A man who is satisfied with that becomes a visionary, an idealist. Edison was not satisfied with his visions of the possibilities of electricity. He transformed "potential" or possible power into actual power, visions into realities. Do you think he sees the goal of his desires nearer than at first? I expect it looks much farther away, for the more he uses electricity the greater his vision of its power becomes. Do you think he grows tired in the pursuit of his vision? It doesn't look like it, when he can say things like this: "I have retired. . . . I am having the fun of my life—steering clear of anything that has money-making connected with it. I am trying some chemical experiments. . . . I have always felt as though something inside of me were driving me. . . . Why do I invent? We work because in some way it satisfies us. That is all we know."

Is it not so in the spiritual life? One who is following the Vision with all his might does not grow tired of the pursuit. No, it attracts him more and more, as any other "ruling passion" will do.

Where there's a will strong enough, a way will be found, or made—even if a tunnel has to be bored through a mountain.

DORA FARNCOMB ("HOPE").

Enquirer is grateful to A Subscriber for answering questions in regard to Saints. And now, dear fellow-believers in Christ, since there are so many proofs that we are saints, why fear to take that name given by God Himself? So doing will not promote spiritual pride, or carelessness, but rather true humility, with prayerful watchfulness not to bring reproach upon that One, by Whom it is given. What would we think of children of an earthly monarch, who were indifferent to the titles given them by birth, or refused to accept them? Will Subscriber, or someone else, please answer the following: Are there Scripture to prove that any of God's Saints are entitled to the word "Reverend," or to whom can it be applied?

ENQUIRER.

EACH IN HIS OWN TONGUE

A fire mist and a planet,
A crystal and a cell,
A jellyfish and a saurian,
And caves where the cavemen dwell;

Then a sense of law and beauty,
And a face turned from the clod—
Some call it Evolution,
And others call it God.

A haze on the far horizon,
The infinite, tender sky,
The ripe, rich tint of the cornfields,
And the wild geese sailing high—
And all over upland and lowland
The charm of the goldenrod—
Some of us call it Autumn,
And others call it God.

Like tides on a crescent sea beach,
When the moon is new and thin,
Into our hearts high yearnings
Come welling and surging in:
Come from the mystic ocean.
Whose rim no foot has trod—
Some of us, call it Longing,
And others call it God.

A picket frozen on duty— A mother starved for her brood—

—CHRISTINA ROSSETTI.

Socrates drinking the hemlock,
And Jesus on the rood;
And millions who, humble and nameless,
The straight, hard pathway trod—
Some call it Consecration,
And others call it God.

ALONE WITH GOD

Alone with God! Oh, blessed time,
Oh, precious moments calm and sweet,
When, for a little while, I kneel
Before my Father's mercy-seat.
No other eye to see me there,
No other ear my words to hear,
When all the longings of my soul
I pour into His listening ear.

Alone with God! No earthly friend
(However dear that friend may be)
Can so fully share my joys and griefs,
Or love me half so tenderly.

For He my every longing knows,
Can all my earnest strivings see;
He strengthens every good desire,
And bears each weakness patiently.

Alone with God! 'Tis there I find
The needed strength to do His will;
There, when the way I cannot see,
He gives me faith to trust Him still.
When the tempter's subtle voice I hear,
I seek at once that safe retreat;
He never can my soul o'ercome
In the shadow of God's mercy-seat.

Alone with God! No words of mine
Can speak the peace that fills me there,
When in a confidence complete,
I cast on Him my every care.
His presence seemeth very near;
And though His face I cannot see,
Life holds no sweeter, purer joy,
Than just "Alone with God," to be.

M. CARRIE HAYWARD.

OUTLOOK

In the hushed midnight of the year,
To him who listens well
Shall come the sound of twelve notes clear,
From Times unfailing bell.
White-robed the priestly Winter stands
And reads the service then;
About him, with uplifted hands,
The trees breath an Amen!

Then in the distance, soft and sweet,
Celestial voices sing.
Arise, my Heart, and run to meet
The choristers of Spring!

FRANK DEMSTER SHERMAN,
in Success Magazine

THE FIRST SPRING DAY

I wonder if the sap is stirring yet,
If wintry birds are dreaming of a mate,
If frozen snowdrops feel as yet the sun,
And crocus fires are kindling one by one;
Sing, robin, sing!
I still am sore in doubt concerning spring.

I wonder if the springtide of this year
Will bring another spring both lost and dear;
If heart and spirit will find out their Spring
Or if the world alone will bud and sing;
Sing, hope, to me
Sweet notes, my hope, soft notes for memory.

The sap will surely quicken soon or late,
The tardiest bird will twitter to a mate;
So spring must dawn again with warmth and bloom,
Or in this world, or in the world to come;
Sing, voice of spring!
Till I too blossom and rejoice and sing.

—CHRISTINA ROSSETTI.

INGLE NOOK

ENQUIRIES FOR SEVERAL MEMBERS

Dear Dame Durden,—The Ingle Nook page is open just under my writing paper, for after reading all the nice letters I thought I would write at once, because if I don't, the next time I want the Nook page it will most likely be gone, for my boys like it, too.

I saw that Farmer's Wife had a good remedy for bugs. I should be pleased if either you or she would kindly send me the address of the firm from whom she got it. I am afraid we shall be greatly bothered with them this summer, as we had a number last summer. We have only the one room and upstairs, so it is very awkward to do anything with sulphur, and it is such a poor old thing of a house that all the smoke would escape out of the cracks and do no harm to the bugs. The first bugs we ever had came in a mattress around the leathers patches and the seams. But as I have seen them on the storekeeper's bill book, and have got them in new suits and other stuff, I feel I am not to blame for the pests.

Since Willing-to-Learn keeps guinea fowl, I wish she would tell about them. Are they good to scare hawks and crows away? They take so many of our little chickens. We are having a new henhouse put up so the wolves won't get quite so many of them.

I should be very pleased to hear Evelyn tell us all about her money-making as I am like Farmer's Wife, I want to make as much money as possible this year, for Jack Frost visited us, too. I would like to know, also, if anyone has tried one of the Planet Jr. garden seeders, wheel hoe, cultivator and plow combined. I should like to get one, but think they are dear for a small garden.

I agree with Mary, that it is much harder to keep a small house clean than a big one. I, for one, would like to hear the interesting stories of our members' former days in the Old Country. After reading Emerald Eyes' letter I felt sorry for her. I have no mother myself, and she seemed about my own age. She has two little girls, and I have two little boys. If she wishes it, and will answer, I should be very pleased to write to her. I hope Nameless' little boy is better. I know what it is to have sick boys. I must tell you what a nice letter I had from Happy Wife, and am looking forward to getting another. The last letter I sent to Lonely One came back, so I do not know where she is, though I would like to.

This is such a backward spring; there is lots of snow in places yet. The wet and mud are hard on shoes. The shoes we get now are poor and at a high price. They do not last half as long as they did when they weren't so dear. Why don't they make them with the brass toe caps that didn't wear out so quick? The reason to my mind is that "much wants more." I would say to the shoemaker: "Give us something that will last a year at least and at a price to fit." Come down on price and give better goods is what we ought to vote on!

But no vote for me! I have something more interesting, and those who haven't should have. Hope I don't get turned out.

BERTAL.

P. S.—Can anyone give me a remedy to take and help off freckles?

B.

(I sent the address for which you asked, and hope you will find it quite satisfactory. I don't know a cure for freckles, though I have heard lemon juice recommended, also butter-milk. I should think the lemon, undiluted, would be too strong for the skin.—D. D.)

MOUNTING THE FLOWERS

Dear Dame Durden,—I have been thinking for some time of writing a letter for Ingle Nook, but so many more important things crowd it out. There are many things to discuss, but I cannot do so now for my boy is asking, "Is your letter written? It is time to take it to the post." So I will only ask you if you could tell me through your paper how to press flowers, so that they will retain their natural colors. Would like to begin to press as soon as the first anemone shows its smiling face.

When my babies are raised, and I am more at leisure to write, I hope be able to pay back the Chatterers for valuable hints gleaned from their letters.

SINCERITY.

(Your question came at a seasonable time and other readers will be glad that you asked it. Do not press your flowers and then try to mount them. They are certain to break, and cannot be arranged artistically. Just reverse the process and it will be much more satisfactory. The method is simple.

If you want the whole plant, roots and all, take out with you a trowel with about a ten-inch blade. Take also several sheets of newspaper, a pencil and some tags, and a box or basket in which to bring home the spoil. When you come to a flower you want, dig it up carefully; spread one of the papers on the ground and lay the plant on it, in one corner wrapping up gently in the shape of a horn until the whole plant is covered. Place root end down in your box and go on.

When you have all you need (do not pick wastefully) go back home and prepare at once to do the mounting. You will need some of the best photograph paste (which comes at about ten cents a bottle), some powdered alum, a half-inch camel's hair brush, a piece of soft, old, white linen or cotton, several sheets of white blotting paper about 11 inches x 14 inches, sheets of linen paper preferably pearl gray, the same size as the blotting paper, and some transparent court plaster. Dissolve the alum in the proportions of two ounces to a gallon of water. Remove the plant from the paper, and wash off in clear water every bit of earth from the roots. Then, holding it by the root, dip the whole plant for a moment or two in the alum solution. Upon taking it out, lay it flat upon a folded newspaper, and pat it gently with a soft cloth to remove the moisture. Put a sheet of the linen paper on the table, and lay on it the plant. Fasten it to the paper by pasting a piece of the plaster across the stem near the root. Decide on the arrangement of flower and leaf that you want, and the exact position each will have on the paper. Raise the first leaf slightly with the left hand and with the tip of the second finger of the right rub paste on the paper in the space the leaf will occupy. Press the leaf down gently, and rub it flat carefully with the right forefinger. Place a sheet of newspaper over and press down firmly with palm of the hand. Remove after a moment and wipe off the extra paste. Do all the leaves before the flowers. If a flower has a very bulky center, like the ox-eye daisy or Black-eyed Susan, make a hole in the paper at the exact spot where the knob will come with some tapering instrument having a point (a lead-pencil, for instance), and push the flower gently into it. The petals will then come even with the surface of the paper, and can be spread out in perfect form. When every leaf and flower is pasted down, and the excess paste rubbed off the paper, place the sheet on the table and leave for a few moments till there is no danger of the paste sticking to anything else. Place a folded newspaper over the whole mount, and on top put a board with a ten-pound weight on it. Proceed

with the mounting of another flower, and when finished lay it on top of the first under the weight. Let remain until the next day, then lay the specimens on a table, and iron them one at a time under a sheet of thick white blotting paper.

Don't forget your promise to write to us again, but do not defer it too long.—D. D.)

A REPLY FROM RASTUS

Dear Dame Durden,—For the purpose of supplementing my former remarks and removing the false construction which Nan and others have put upon them, I again intrude my "captious" presence into the Ingle Nook. You suggest the non-existence of a hornet's nest in this company, but there must be bees, for I feel that in accepting your invitation I have been "stung."

Dame Durden asked for a continuance of the discussion on woman suffrage started by Nameless, and my letter was offered as a criticism of Nameless' argument; but Nan and others wander from the text and read into a single comment, an argument for the superiority of one sex. Now, I was under the impression that that question was a dead issue centuries ago, for, to my mind, Christianization and civilization are terms synonymous with the emancipation of woman. Nan is laboring under the delusion that, in belief, I am somewhat of a relic of antiquity; but her resurrection of that ancient controversy would suggest a very recent association on her part with the "remote ages." I had reference to woman as a possible voter and legislator, and in that capacity I would characterize her as weak. It took masculine minds to produce Plato's "Republic," Smith's "Wealth of Nations," and Hough's "The Sowing." Furthermore, we find a very unequal representation of the sexes among our railway, bank, stock company and exchange presidents and managers, our lawyers, doctors, university professors, and even successful secondary school teachers. Nan would have us believe that the Bible means woman to be weaker physically, only, but the condition of affairs noticed above seems to suggest inability to compete with man in those fields. Nan calls my attention to the achievements of ladies in our colleges. Certainly, some have won distinction as students. But what has become of the majority of our sweet girl graduates? They have ascended their pre-destined throne, the center of a home.

Man realizes that there are many things for which woman is eminently qualified, therefore he is careful not to invade her kingdom, except in cases of necessity. And I believe the majority of Canadian women are of the "Sunshine" and "Helmet of Resolution" type, alike content to leave to man the conduct of those affairs which he is by nature the better able to conduct. Enumeration of the callings in which woman excels is not apropos, and, of course, it is foolish to assume that there is any difference in the relative importance of the sexes in doing the world's work; but the administration of the affairs of state requires the exercise of minds dominated by cold reason rather than natures swayed by passion. Students of psychology, and poets tell us, and observation teaches—witness the methods adopted by suffragettes in England—that woman's acts are governed largely by passion and intuition. Hence my stand on the suffrage question.

Nan quotes Ruskin to prove that the sexes cannot be compared in similar things, and she straightway proceeds to prove the equality of intellect. "Consistency, thou art a jewel!" She adopts the "reductio ad absurdum" method when she asks the effect of the pretty face without brains on yours truly. Did I not intimate on the go in that I am still a bachelor?

This letter is too long already, but I cannot close without commending to you, dear Dame Durden, the wholesome advice of Sunshine.

RASTUS.

THE FARMER'S ADVOCATE FASHIONS



6279 Empire Waist,
32 to 40 bust.

6279.—To be made with low or high neck, long or short sleeves.

In the illustration it is shown made of crepe meteor combined with heavy applique and simple embroidered net, the girdle and the narrow bands being of messaline, but pongee and foulard would be pretty so made, soft-finished satins continue all their vogue as cashmere and henrietta cloth among the best-liked materials the simpler gowns of indoor wear. For the little gathered frill, or tulle, as our English friends call it, the long sleeves, any pretty thin material is appropriate; net, chiffon, or anything of the sort. The girdle and the bands, the material, or one in contrast, may be used as preferred.



6263 Misses' Tucked
Princess Gown,
14 and 16 years.

The princess dress that is now severe in its lines is one of the becoming that a young girl can wear. This one is novel, and in the style, and suits almost any number of occasions. It can be made from fine lawn or embroidered net, or some similar material, and used for graduation; it can be made any pretty muslin and become dainty summer frock. It can be made from such simple silks as messaline, crepe de Chine and India silk, used for dancing and occasions of sort, and its guimpe portions are appropriate for the tucked net, treated, for fancy net, for chiffon all-over lace, for any material of sort, while trimming can be any preferred banding. In the illustration Persian lawn is trimmed with insertion and combined with chiffon and long sleeves of tucking.

Price of above, 10 cents per yard. When ordering, give bust measure. Address: "Fashions Department," "The Farmer's Advocate," Winnipeg, Man.

(Stung, eh? Isn't that just a error of your mortal mind? Anyway if it is so, you've been stung into writing a much stronger letter than your first one. So be thankful Rastus. I have my own doubts about the matter in your last sentence.—D. D.)

The Success of Our Newest Department

Was a foregone conclusion. Our experience in the Binder Twine business has been repeated in our Farm Implement Department. We were actuated by no mere money-making impulses when we entered into either field. Our sole desire was to make ourselves of still more benefit to the farmers of the West than we had already proved ourselves to be. To accomplish this it was only necessary to show them at what price farm goods properly bought and sold at a fair profit should cost the farmer.

Our Spring and Summer Catalogue contains 9 pages of goods exclusively used for agricultural purposes. The illustration and description of this wagon are reproduced from the Catalogue.

OUR IMPERIAL FARM WAGON

Everything that enters into the make up of our Imperial farm wagon is of the very highest grade. The inspection of the hardwood material begins at the stump and is followed conscientiously to the completion of wagon; nothing but the very best seasoned hardwood stock is used.

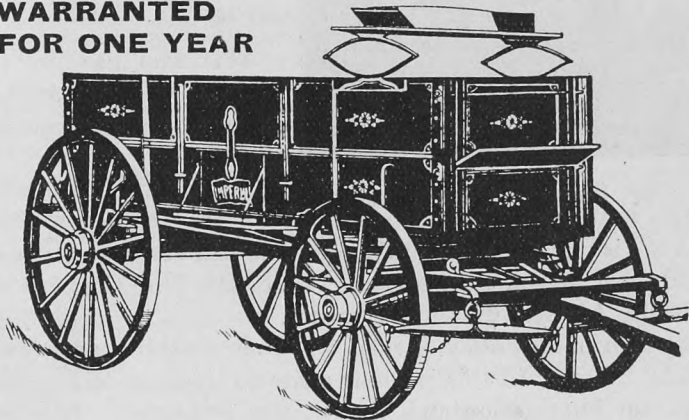
The materials in this wagon are as follows :
Wheels—If any part of a wagon requires particular attention it is the wheels; we use only the very choicest timber and the construction is such as to make them run true and easy. Spokes are selected second growth hickory. Hubs and rims are best seasoned oak.

Gear—Axles are made from select maple, the hounds, bolsters, pole, and sand boards are tough, seasoned white oak, reaches are oak, heavily ironed, top of bolster is ironed to prevent wear of box or other load, and the iron brace that runs from the axle to hounds underneath, prevents hounds from being strained out of shape.

Skeins—We use the very best of metal in our skeins, and the sand boards are ironed over all giving a strength and durability not obtained by the usual method of short bolster plate irons. Tongue draw rod takes in the side braces, thus assuring that the tongue draft keeps the parts in line as it draws on the axle from a point nearest the wheel.

Box is made in most thorough manner, with side clamping device, anti-spreader hinged end gate, and is grain tight. Size of box 11 ft. long, 28in. high, bottom and top boards each 14 ins. high and 3 ft. 2 ins. wide. Painting on this wagon is neat and done by hand. Every part thoroughly covered and finished so as to give wagon a good appearance.

WARRANTED
FOR ONE YEAR



Number	Size of Skeins	Height of Wheels		Size of Tires	Dimensions of Box			Capacity	Shipping Weight	Price
		Front	Hind		Length	Width	Height			
41FA142	3½x11	3 ft. 6 in.	4 ft. 4 in.	2½x½in.	11 ft.	3 ft. 2 in.	28 in.	6,000 lbs.	975	\$69.00
49FA143	3½x11	3 ft. 6 in.	4 ft. 4 in.	3 x½in.	11 ft.	3 ft. 2 in.	28 in.	6,000 lbs.	1,000	71.00

Price is complete with doubletrees, neck yoke, spring seat and box as shown in illustration. For triple top box 8 in. high add \$4.00 to above prices.

BINDER TWINE

There is really no advantage to be gained by withholding orders until nearly the time it will be needed. Make an estimate of the amount you will require and we will reserve it for you. This no need to send money with your order. It can be paid for on delivery. Our prices are :

	Winnipeg	Brandon	Regina	Saskatoon	Calgary	Edmonton
Golden Manilla 550 ft. to lb.	9c. per lb.	9c. per lb.	9¼c. per lb.	9½c. per lb.	9¾c. per lb.	9¾c. per lb.
Eaton Standard 500 ft. to lb.	8½c. per lb.	8½c. per lb.	8¾c. per lb.	8¾c. per lb.	9c. per lb.	9c. per lb.

The terms of our guarantee are well known and cover every possible danger of loss.

OUR
SPECIAL
GROCERY
CATALOGUE
HAS JUST
BEEN ISSUED

THE

T. EATON CO.

WINNIPEG

LIMITED
CANADA

WE ARE
PLEASED TO
SEND ANY
CATALOGUE
FREE ON
REQUEST

one sent, from Macdonald, an order for pattern 6287 in sizes. Money and name would be appreciated.

* * *

aged five, and a resident of the seat of culture, ran to her mother one morning exclaiming : "Father, brother Howard swore." "Swore, did he?" inquired the mother, grinning, reaching for his slipper. "What did he say?" "He said 'ain't'" responded Katy solemnly. —

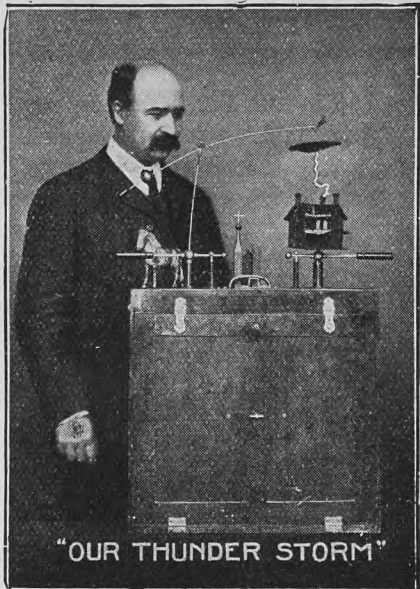
THE AMATUER BOTANY CLASS

THE LEAF

Now we come to the leaves. And here there is such bewildering variety that it is hard to know where to begin or end. The leaves are found scattered along the stem and its branches in such a way as best to be exposed to the air and sunlight. Varied as leaves are in structure and appearance their functions are practically the same in every variety, namely, to prepare and digest the plant food taken in through the leaves. This food is carbon, found in the air as a gas called carbolic acid gas, a combination of carbon and oxygen. The plant breathes in through its lungs, the leaves, this gas, retaining the carbon and giving out again the oxygen. Human beings and animals, on the contrary, breathe in oxygen, and breathe out the carbonic acid which is life to plants and death to humanity if inhaled in large quantities. The value of having growing plants about one is apparent when one knows their choice of foods. Beside breathing out oxygen the leaves give off superfluous moisture which had been taken up through the roots from the soil.

Most leaves are composed of a very flat thin blade attached to a stalk, the petiole which in turn is fastened to a branch or stem. Frequently at the base of the stalk two thin leaf-like expansions are found. These are known as stipules and may be seen on the mallow leaf shown in the cut. But sometimes both stipules and stalk are missing. The great variety of shapes of leaves range from the needle-like leaf of the pine and the grass blade to the almost circular leaf of the nasturtium or the water lily, with willow, beech, oak, maple and basswood in between. Even the thinnest of these leaves is made up of several layers, which you can see if you glue or paste a leaf between two sheets of paper or cloth and dry carefully. If, when dry, you pull these two sheets apart you will split the leaf in two. Then it will be seen plainly that the web of the leaf is supported by a frame work of veins. One larger than the rest usually has its position in the centre of the leaf running from the end of the stalk to the tip of the leaf. This is called the mid-rib. If the veins branch from one another like the mallow the leaves are net-veined, but if the veins run side by side from the midrib without branching like the willow or the clover leaflet, they are parallel-veined. If the main ribs of the leaf's frame-

Mr. M. Townsley in Action



Mr. Townsley is known to be "Authority on the Lightning Arrester," and from what is required to make buildings safe from lightning stroke. By his wonderful and practical "Thunderstorm" he has been able to prove that his system of lightning rods can be relied on as a safe guard to both life and property.

This firm has the confidence of hundreds of Farmers' Mutual Insurance Companies. Also the

patronage of the public and endorsement of many Fire Marshalls all over the States.

As to his reliability and integrity there can be no question and Canada will welcome the introduction of His Pure Copper Cable Lightning Arrester within her border.

The firm of Townsley & Sons will soon establish an office in Canada. But until this is done write to them at Minneapolis, Minn., for information and booklet also estimates. They now carry a stock in Winnipeg for prompt shipments. Also their representatives will assist in starting the work.

Write for the agency and booklet.

M. TOWNSLEY & SONS

No. 1315 4th St. S. E.

Minneapolis, Minn.

WA-WA-DELL FARM

Will offer at Provincial Pure Bred Cattle Sale Brandon, Man. May 27

the following high-class Shorthorns:

TWO YOUNG COWS of dual-purpose character, bred by A. W. Smith, Maple Lodge, Ont., with bull calves at foot, sired by Count Wilfrid =59678=, the most richly-bred dual-purpose sire in the West.

THREE RED TWO-YEAR-OLD BULLS of dual-purpose type, also bred by A. W. Smith; the class of bulls that will make good in any herd where beef and milk is the desideratum.

ONE TWO-YEAR-OLD ROAN BULL, bred by Barron, of Carberry; a splendid individual and carrying the blood of Meteor, Pilgrim (imp.), Nobleman (imp.), and Topsman in his four topcrosses. These are the bulls that have made the Barron herd.

A. J. MACKAY

Macdonald, Man.

Who Wants a Watch?

IT is the easiest thing in the world to have one—a good, reliable one—and here are the conditions.

For three NEW subscribers we will send you a Nickel case, open face, seven jewel, stem wind, stem set watch (gentleman's size).

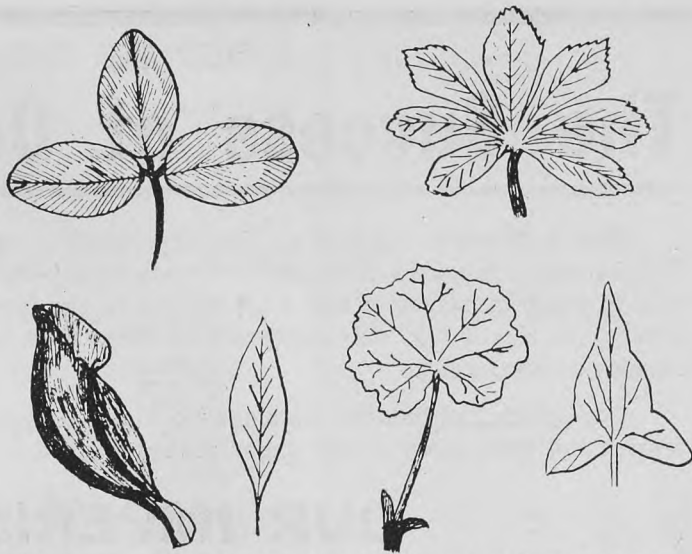


For four NEW subscribers we will send a lady's silver watch, handsomely engraved, open face, fancy illuminated dial, stem wind, pendant set and guaranteed to keep correct time.

work radiate from the top of the petiole like the sticks of a fan they are called digitate or palmate in their veining. Many leaves have this form, such as the maple, grape, currant, gooseberry and nasturtium. But if there is but one large vein and the smaller veins are given off from it along its whole length the veining is like a feather and is called pinnate. The little leaflet of the rose and clover and the leaf of the willow and beech are good examples of this pinnate veining.

Sometimes the blade of a leaf contains but a single piece, and sometimes it is divided into several distinct pieces all attached in some way to the top of the petiole. In the first case of the single blade the leaf is called simple, and in the case of the divided leaf it is called compound. The simple leaf may have a perfectly smooth outline or margin like the nasturtium or the buckwheat; it may be lightly toothed like the mallow or chestnut; or it may be deeply indented like the maple or the oak. But no matter how deep the notches, if the divisions do not extend right to the central rib, the leaf is considered simple. The compound leaf is always composed of distinct leaflets, clover are good examples.

A picture of a leaf of the pitcher plant



1 CLOVER 2 HORSECHESTNUT 3 PITCHER-PLANT 4 WILLOW 5 MALLOW 6 BUCKWHEAT

is shown here as a curiosity among leaves. It appears to be formed by the turning in and cohesion of the outer edges of an ordinary leaf so as to form a tube which is closed except at the top. It is armed on the inner surface with bristles pointing towards the base of the leaf. These leaves are reddish on the outside and pale green veined with

crimson within. Lured by the bright colors unwary insects crawl over the edge and loose themselves in the bristly hairs which pointing downward prevent any return. The insect finally drops down into the watery fluid at the bottom of the pitcher and is drowned. Its body is dissolved and practically digested.



The Western Wigwam

A TELEPHONE AND A GRAMAPHONE

Dear Cousin Dorothy,—Here I come again. I do not know whether it is too soon or not. I was just reading the sad news of Philadelphia's death. Her letters were very interesting. Also, I was very sorry to hear of Black Bird's death. My father has taken the "Farmer's Advocate" for a number of years, and we like it fine. I have seven sisters, but no brothers. I am going to try and improve our page as much as I can, as Philadelphia did. I raised a pair of guinea fowl last summer and a pair of ducks. I do like the guineas and ducks. I am going to have a flower garden next summer, and am going to plant my pansy seeds now. I think it would be nice if all the members had flower gardens to tell us about. It would be very interesting. I have read a great many books, and I like to read them. I am going to tell you about the Shetland pony that I ride. She is bay, and her name is Falma, and she is forty-two inches high. I guess there are not many of the members have Shetland ponies. I am the only one that writes to the paper that lives around here. We have a telephone in our house, and we find it very handy. We also have a gramophone and one hundred and thirty-six records for it.

The snow is nearly all gone now, and the birds are returning. I am so glad that summer is coming again.

FIRE FLY.

Man. (a).

THE BEAVERS AT WORK

Dear Cousin Dorothy,—This is my first letter to the Western Wigwam. My father has taken the "Farmer's Advocate" for seven years. I have two brothers. We go to town school. I am nine years old, and in the fifth grade. We have a hundred and eighty acres of land. We have a homestead three miles from our farm. It is all bush. There are

beavers on it. There is a dam and a beaver house. The house is so large that if a man standing on the ice on each side they could not see each other the top of it. The beavers cut wood. Papa drew all his firewood from the homestead. Some of the trees the beavers cut down were large around as a candy pail. We have four horses and sixteen head of Shorthorn cattle.

FLO McHARRIS

Man. (a).

A TEMPERANCE GIRL

Dear Cousin Dorothy,—Thank you very much for mentioning those books. I shall read them to see if I can get any more. I read "Uncle Cabin" not very long ago and thought it very nice. How many of the members like reading temperance books? I have read a few. You ever read the "Red, Red V"? It is very sad. Do you think it would be nice to have the "Western Wigwam" a temperance club? I cause the boys will soon be old enough to vote, and perhaps some time we girls grow up ladies we will be allowed to vote. If all the members of the "Western Wigwam" were temperance people in the future we would have voted against liquor. I would soon have no drunkards, no hearted drunkards' wives, and no little children.

I was very sorry to hear that the nadian Blackbird and Philadelphia died. There are five children in our family and one dead in our family. He was the third child. I will be fourteen in July. I am enclosing a stamp for a button. I hope I shall see you when I go through Winnipeg in a few weeks. My brother and I will know whether we can have a party until we get back East. If we have a large yard we will. Viberi he will grow vegetables, but I will grow flowers, although I will grow a few vegetables.

plant pansies, sweet peas, nasturtiums, white asters, forget-me-nots, canterbury bells, mignonette and popcorn. With best wishes for the Wigwam, I will close. I am in favor of pen-names, so as Apple Blossom was taken, I will sign myself—

NIGHTINGALE.

Sask. (a).

(I had to change your name again. The members will have to begin thinking of uncommon names, for all the usual ones are gone. I hope all our members are temperance boys and girls.—C. D.)

A RIDE ON THE COW

Dear Cousin Dorothy,—I would like very much to be a member of your club. I have never written to your club before, so will not write a long one now. I saw your letters in the "Farmer's Advocate." I am thirteen years old in May. Last summer I got on the cow's back, and she threw me off right into the mud. Lillie's friend was there and he laughed. Miss L— was our school teacher, and she is to be wedded to an Englishman. There is no school now. I am going to have three buttons—one of your club and two others. I would be very much obliged if you would make me a member of your club. Please send me a button. I will be glad to exchange my cards with any girl or boy, and I will repay them.

Alta. (a).

MAIDA.

A FRIEND OF PRAIRIE CREE

Dear Cousin Dorothy,—Will you allow another Indian to come into your pleasant Wigwam? I am a boy, thirteen years old, and live four miles from the little village of Sperling. I go out to my uncle's at Roland, and had started seeding. There was a snow-storm last night that will keep seeding for a while. We have eight horses. I go to the school as Prairie Cree, and I will be there the other day.

(a).

PLOUGH BOY.

FUN ON THE RIVER

Dear Cousin Dorothy,—This is my letter to your most interesting club, but I always read the letters with much interest. I am on the banks of a large river, on which we have ice skating in the winter and boating in the summer. My sister and I go to school; we are in the seventh grade. I would like to get a button very much. I am enclosing a two-cent stamp. I am thirteen years old.

(a).

JEAN DALLAS.

STATE OF THE SAGO LILY

Dear Cousin Dorothy,—I have been a long reader of the Children's Advocate for a long while, and have at last taken courage to write, and if you will give me admittance to the club, I should like to see my letter printed. This is my first letter, and I am not going to say much, for, in my ignorance, I hardly know what to say. We live on a farm last summer, but I moved to town now, because of school. My father is on our farm now. He is a well-to-do man. We have six horses and two colts, a few cows and one pig. Our farm is twelve miles from town, so it is quite a little way to go. I am in the third grade in school, and expect, and hope to be in the fourth next summer.

(a).

SAGO LILY.

LIKES THE NAME

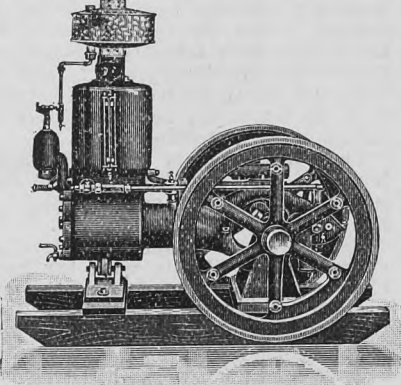
Dear Cousin Dorothy,—This is my letter to the Wigwam. I live on a large farm. I go to school, and am in grade eight. I am thirteen years of age. My studies at school are geography, spelling, English and Canadian history, arithmetic, dictation and reading. My father has been a member of the "Farmer's Advocate" for many years and I enjoy reading the paper in it. I think you have chosen a nice name for your page. I would like to get one of the buttons.

(a).

ELLEN KELLET.

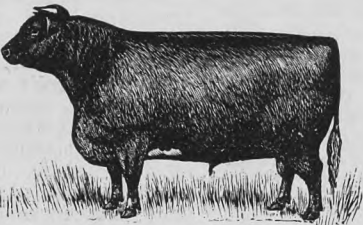
Lines We Manufacture and Deal In

WINDMILLS for Power and Pumping
STICKNEY GASOLINE ENGINES—
(Stationary and Portable)
HORSE POWERS AND TREAD POWERS
WATER TOWERS AND ELEVATED TANKS for Towns and Villages
AYLMER FARMER'S WAGON AND PLATFORM SCALES
FIRE ENGINES, STEEL FLAG STAFF
TORONTO AND ALYMER PUMPS—
(all styles and kinds in Iron and Wood)
TANKS IN STEEL AND WOOD
GRAIN GRINDERS



STEEL SAW FRAMES AND SAWS
FEED CUTTERS
WATERING TROUGHS AND BASINS
EAGLE STEEL LAWN SWINGS
KELLY AND TANNEYHILL AND STANDARD WELL DRILLING MACHINERY
RAILWAY TANKS, FITTINGS AND PUMPING ENGINES
Pipe and Fittings, Belting and Hose, Brass, Iron and Porcelain Lined Cylinders, Eureka and Deep Well Cylinders, Hydraulic Rams
Write us for Catalogue and Prices. Specify the goods you wish information about.

ONTARIO WIND ENGINE & PUMP CO., Ltd.
WINNIPEG, MAN.



FIFTH ANNUAL SALE
OF
Pure Bred Cattle

Under the Auspices of the Cattle Breeders' Association of Manitoba

BRANDON, MAY 27th, 1909

Cheap Railroad Rates for delivery of Stock to and from the Sale

For full information and Entry Forms, apply to

A. W. BELL

1001 Union Bank

Winnipeg

The Merchants' Bank
OF CANADA

ESTABLISHED 1864

ESTABLISHED 1864

Paid up Capital, \$6,000,000
Reserve and Undivided Profits, \$4,400,997

Total Deposits \$41,327,87
Total Assets \$56,598,62

BRANCHES IN WESTERN CANADA

MANITOBA

Brandon
Carberry
Gladstone
Griswold
Macgregor
Morris
Napinka
Neepawa
Oak Lake
Portage la Prairie
Russell
Souris
Winnipeg

SASKATCHEWAN

Arcola
Carnduff
Gainsborough
Maple Creek
Melville
Oxbow
Whitewood
Unity

ALBERTA

Calgary
Camrose
Carstairs
Daysland
Edmonton
Lacombe
Leduc
Lethbridge
Medicine Hat
Okotoks
Olds
Red Deer
Sedgewick
Stettler
Tofield
Vegreville
Wainwright
Wetaskiwin

BRITISH COLUMBIA

Vancouver
Victoria

SAVINGS DEPARTMENT AT ALL BRANCHES

and Interest allowed at best Current Rates.

Special Attention to the business of Farmers and New Settlers

BEST PAGE IN THE BOOK

Dear Cousin Dorothy,—This is my first letter to your club. I like the Western Wigwam fine. I think it is the best page in the book. I see where Cousin Dorothy has told the cousins that she would give them buttons. I would like one.

ZETTA LA CHAPELLE (12).

Sask. (b).

WANTS A BUTTON

Dear Cousin Dorothy,—I thought I would like to join your club. I would like to receive one of your badges. If anybody would send post-cards to me I would gladly answer. Hoping to see my letter in print, I will close.

ALFRED KENNEDY.

Man. (a).

ASKS FOR ELLA PRICHARD

Dear Cousin Dorothy,—In the last "Advocate" Cousin Dorothy mentioned something about having buttons. I think it would be very nice to have something to show we belong to the "Western Wigwam." Well, Cousin Dorothy, how did you spend Easter? I hope it was a very joyful Easter. I colored ten eggs and hid twenty, but didn't eat nearly all of them. It has been very windy for a few days, more like autumn days than spring. I saw in one of the member's letters that she was wondering if Philadelphia was better. Has she not heard of her death? It was very sad that we should lose two of our members in so short a time. I like most of the members. Am very fond of reading, and have read a good many books. I have never read "The Wide, Wide World," but I would like very much to. I had a birthday party on my eleventh birthday, and I had a few of my friends up. We had a real nice time. I would like to see some drawing in the Wigwam. I am very fond of drawing, but I cannot make anything fit to look at. But surely there are more members that can draw. I would like to correspond with anyone about my own age (11).

FLEET FOOT (10).

Alta. (a).

P. S.—Does anyone know anything about Ella Prichard? I wrote her, but never received any answer.
F. F.

DRAWING THE FAVORITE

Dear Cousin Dorothy,—This is my first letter to the Western Wigwam. Papa has taken the "Farmer's Advocate" for three years, and I enjoy reading the letters in the Wigwam very much. I live on a farm five miles from Sentaluta. I have two sisters and one brother. My eldest sister is fifteen and brother, ten, and my youngest sister is seven. I am not going to school till winter. My favorite subject is drawing. The school-house is one and a half miles from our place, and we have a lady teacher. I think your new name for the club is much nicer than "Children's Corner." I guess I will close, in hope this will not reach the waste-paper basket, and that I may see my letter in print.

EDNA OLMSTED (13).

Sask. (b).

GOT HIS WISH

Dear Cousin Dorothy,—This is the second time I have written to your club. My father has taken the "Farmer's Advocate" for three years. It is spring-time now. I have caught a few gophers this spring. I have a wolf hound, and she is good after cattle. We have got seven horses and six cattle, and about fifty-five hens. I have three sisters. I go to school alone, and I ride horse-back. My studies are arithmetic, grammar, history, composition and physiology. It is a long time since I have written before. I got (b) under my first letter, and am going to try to get (a) this time.

DURRELL OLMSTED (10).

Sask. (a).

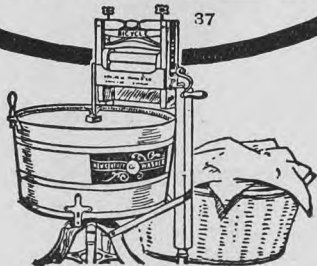


Nine O'Clock, and the Washing Done

The "New Century" Washing Machine washes a tubful of clothes in five minutes. And washes them better than you can possibly do the washing by hand.

New Wringer Attachment allows water to drain directly into the tub. Price \$9.50 complete—delivered at any railway station in Ontario or Quebec. Write for free copy of our new book.

Dowdell Mfg. Co. Limited, Hamilton, Ont.



ROSS RIFLE MARK III

EXPERIENCE OVERCOMES PREJUDICE

Early in 1908 thanks to articles in the party press it was almost impossible to secure a fair trial for Ross Rifles.

Young shots were using them somewhat and old ones opened their eyes when at the P. Q. R. A. Private Porter with a Ross III won the tyro aggregate with a score only three points lower than the winner of the Grand Aggregate.

The wonderful success of the Ross Rifle at Bisley and all the Canadian matches has convinced rifle shots now that it is a handicap not to have a Ross Rifle. You will not be doing justice to your skill this year unless you use a

ROSS RIFLE, MARK III.

Write for catalogue which contains also full description of the Ross Sporting Rifles made in Canada, and combining the accuracy and power of our Military Arm with great style and handiness.

Ross Rifle Co., Quebec

Virden Nurseries



200,000

Trees and cuttings, small fruits, shrubs, creepers spruce, apples and crabs.

I have by far the largest stocks in the West, of these hardy, fast growing Russian poplars and willows; I send everything by express, prepaid so as to arrive in good order. Trees may be returned at my expense if not satisfactory. No agents, no commissions, selling cheap. A postal card will bring you my price list and printed directions.

JOHN CALDWELL, Virden Nurseries
VIRIDEN, MAN.

Established 1890

FIT'S Trial Free

Falling Sickness, Epilepsy, St. Vitus' Dance, Nervous Troubles, etc., positively cured by LIEBIG'S FIT CURE. Free trial bottle sent on application. Write Liebig Co., Phoebe St., Toronto.

The Golden Dog

By WILLIAM KIRBY, F. R. S. C.

COPYRIGHT BY L' C. PAGE CO., INCORP.

CHAPTER XV.—(Continued.)

"True, dame!" Caroline rose at the suggestion. "I like not this secret chamber. It suited my sad mood, but now I seem to long for air and sunshine. I will go with you to my own room."

They ascended the winding stair, and Caroline seated herself by the window of her own chamber, overlooking the park and gardens of the Chateau. The huge, sloping forest upon the mountain side, formed, in the distance, with the blue sky above it, a landscape of beauty, upon which her eyes lingered with a sense of freshness and delight.

Dame Tremblay left her to her musings, to go, she said, to rouse up the lazy maids and menservants, to straighten up the confusion of everything in the Chateau after the late long feast.

On the great stair she encountered M. Froumois, the Intendant's valet, a favorite gossip of the dame's, who used to invite him into her snug parlor, where she regaled him with tea and cake, or, if late in the evening, with wine and nipperkins of Cognac, while he poured into her ear stories of the gay life of Paris and the bonnes fortunes of himself and master—for the valet in plush would have disdained being less successful among the maids in the servants' hall than his master in velvet in the boudoirs of their mistresses.

M. Froumois accepted the dame's invitation, and the two were presently engaged in a melee of gossip over the sayings and doings of fashionable society in Quebec.

The dame, holding between her thumb and finger a little china cup of tea well laced, she called it, with Cognac, remarked,—"They fairly run the Intendant down, Froumois: there is not a girl in the city but laces her boots to distraction since it came out that the Intendant admires a neat, trim ankle. I had a trim ankle myself when I was the Charming Josephine, M. Froumois!"

"And you have yet, dame,—if I am a judge," replied Froumois, glancing down with an air of gallantry.

"And you are accounted a judge—and ought to be a good one, Froumois! A gentleman can't live at court as you have done, and learn nothing of the points of a fine woman!" The good dame liked a compliment as well as ever she had done at Lake Beauport in her heyday of youth and beauty.

"Why, no, dame," replied he; "one can't live at court and learn nothing! We study the points of fine women as we do fine statuary in the gallery of the Louvre,—only the living beauties will compel us to see their best points if they have them!" M. Froumois looked very critical as he took a pinch from the dame's box, which she held out to him. Her hand and wrist were yet unexceptionable, as he could not help remarking.

"But what think you, really, of our Quebec beauties? Are they not a good imitation of Versailles?" asked the dame.

"A good imitation! They are the real porcelain! For beauty and affability Versailles cannot exceed them. So says the Intendant, and so say I," replied the gay valet. "Why, look you, Dame Tremblay!" continued he, extending his well-ringed fingers, "they do give gentlemen no end of hopes here! We have only to stretch out our ten digits and a ladybird will light on every one of them! It was so at Versailles—it is just so here. The ladies in Quebec do know how to appreciate a real gentleman!"

"Yes, that is what makes the ladies of Ville Marie so jealous and angry," replied the dame; "the King's officers and all the great catches land at Quebec first, when they come out from France, and we take toll of them! We don't let a gentleman of them get up to Ville

Marie without a Quebec engagement tacked to his back, so that all Ville Marie can read it, and die of pure spite! I say we, Froumois; but you understand I speak of myself only as the Charming Josephine of Lake Beauport. I must content myself now with telling over my past glories."

"Well dame, I don't know but you are glorious yet! But tell me, what has got over my master to-day? Was the unknown lady unkind? Something has angered him, I am sure!"

"I cannot tell you, Froumois: women's moods are not to be explained, even by themselves." The dame had been sensibly touched by Caroline's confidence in her, and she was too loyal to her sex to repeat even to Froumois her recent conversation with Caroline.

They found plenty of other topics, however, and over the tea and Cognac the dame and valet passed an hour of delightful gossip.

Caroline, left to the solitude of her chamber, sat silently with her hands clasped in her lap. Her thoughts pressed inward upon her. She looked out without seeing the fair landscape before her eyes.

Tears and sorrow she had welcomed in a spirit of bitter penitence for her fault in loving one who no longer regarded her. "I do not deserve any man's regard," murmured she, as she laid her soul on the rack of self-accusation, and wrung its tenderest fibres with the pitiless rigor of a secret inquisitor. She utterly condemned herself while still trying to find some excuse for her unworthy lover. At times a cold half-persuasion, fluttering like a bird in the snow, came over her that Bigot could not be utterly base. He could not thus forsake one who had lost all—name, fame, home, and kindred—for his sake! She clung to the few pitying words spoken by him as a shipwrecked sailor to the plank which chance has thrown in his way. It might float her for a few hours, and she was grateful.

Immersed in these reflections, Caroline sat gazing at the clouds, now transformed into royal robes of crimson and gold—the gorgeous train of the sun filled the western horizon. She raised her pale hands to her head, lifting the mass of dark hair from her temples. The fevered blood, madly coursing, pulsed in her ear like the stroke of a bell.

She remembered a sunset like this on the shores of the Bay of Minas, where the thrush and oriole twittered their even-song before seeking their nests, where the foliage of the trees was all ablaze with golden fire, and a shimmering path of sunlight lay upon the still waters like a glorious bridge leading from themselves to the bright beyond.

On that well-remembered night her heart had yielded to Bigot's pleadings. She had leaned her head upon his bosom, and received the kiss and gave the pledge that bound her to him forever.

The sun kept sinking—the forests on the mountain tops burst into a bonfire of glory. Shadows went creeping up the hill-sides until the highest crest alone flamed out as a beacon of hope to her troubled soul.

Suddenly, like a voice from the spirit world, the faint chime of the hills of Charlebourg floated on the evening breeze: it was the Angelus, calling men to prayer and rest from their daily labor. Sweetly the soft reverberation floated through the forests, up the hill-sides, by plain and river, entering the open lattices of Chateau and cottage, summoning rich and poor alike to their duty of prayer and praise. It reminded men of the redemption of the world by the divine of the incarnation announced by Gabriel, the angel of God, to the ear of Mary blessed among women.

The soft bells rang on. Men blessed them, and ceased from their toils in field and forest. Mothers knelt by the cradle, and uttered the sacred words with emotions such as only mothers feel. Children knelt by their mothers, and learned the story of God's pity in appearing upon earth as

EE SPEAKING FROM EE

EXPERIENCE

THE DOCTOR: "Ah! yes, restless and feverish. Give him a Steedman's Powder and he will soon be all right."

Steedman's Soothing Powders

EE CONTAIN NO POISON EE

ORDER YOUR CLOTHES MADE-TO-ORDER

GROWN TAILORING COMPANY

Canada's Best Tailors. Toronto

Tweed Suits ... \$12.00 to \$25.00

Fancy Worsteds Suits ... 15.00 to 30.00

Black and Blue Worsteds ... 15.00 to 30.00

All charges paid to destination.

Write for samples and style book saying what you want, and price.

GROWN TAILORING COMPANY

TORONTO ONTARIO

A Woman's Sympathy

Are you discouraged? Is your doctor a heavy financial load? Is your pain a physical burden? I know what these delicate women—I have been discouraged but learned how to cure myself. I relieve your burdens. Why not end the doctor's bill? I can do this for you if you will assist me.

All you need do is to write for a free remedy (Orange Lily) which has been in my hands to be given away. Perhaps a box will cure you—it has done so for others. I shall be happy and you will be cured (the cost of a postage stamp). Your letter confidentially. Write to-day for my free remedy. MRS. F. E. CURRAH, Windsor.

Well Drill Machine

Kelly and Tann, Monarch and Rock and Hammer Drills. Howe Augurs.

Ontario Wind Engine & Pump Co.
WINNIPEG, MANITOBA

ALFALFA INNOCULATION

Are you going to grow alfalfa? You will need soil from an old alfalfa field. I can supply you at \$1.50 per sack. Free. Free on board, C. P. R. or C. N. Cash with order.

PHILLIP LEECH
Baring Sask.

Boys and Girls! FREE

Any one of the above illustrated articles of Jewell's Lady's Gold Brooch set with 8 flashy brilliants, with pearl colored stone centre, Man's gold-plated lever Cuff Links, pretty cut stone setting, or Lady's Gold-plated Ring, brilliant set with small diamonds and large cut stone centre—Give free for selling only \$1.50 worth of our Picture Post Cards of Canadian and English Views, or Collar Buttons, Post Cards sell 6 for 10c. Collar Buttons are Gold-plated and set of 4 sells for 10c. Are easy sellers. Send your name and address and we will mail you the Post Cards or Collar Buttons, whichever you wish to sell. Write at once. A postal will do. **THE RELIABLE PREMIUM CO.** Dept. H. Waterloo, Ont.

a little child, to save mankind from their sins. The dark Huron setting his snares in the forest and the fishers on the shady stream stood still. The voyageur sweeping his canoe over the broad river suspended his oar as the solemn sound reached him, and he repeated the angel's words and went on his way with renewed strength.

The sweet bells like a voice of pity and consolation to the ear of Caroline. She knelt down, and clasping her hands, repeated the prayer of millions,—

“ ‘Ave Maria ! gratia plena.’ ”

She continued kneeling, offering up prayer after prayer for God's forgiveness, both for herself and for him who had brought her to this pass of sin and misery. “ ‘Mea culpa ! Mea maxima culpa !’ ” repeated she, bowing herself to the ground. “ ‘I am the chief of sinners; who shall deliver me from this body of sin and affliction ?’ ”

The sweet bells kept ringing. They woke reminiscences of voices of by-gone days. She heard her father's tones, not in anger as he would speak now, but kind and loving as in her days of innocence. She heard her mother, long dead—oh, how happily dead ! for she could not die of sorrow now over her dear child's fall. She heard the voices of the fair companions of her youth, who could think shame of her now; and amidst them all, the tones of the persuasive tongues that wooed her maiden love. How changed it all seemed ! and yet, as the repetition of two or three notes of a bar of music rang to recollection the whole melody to which it belongs, the few words of Bigot, spoken that morning, swept all before them in a rift of hope. Like a star struggling in the mist the faint voice of an angel heard afar off in the darkness.

The ringing of the Angelus went on. Her heart was utterly melted. Her long parched, as a spent rain in the burning desert, were only filled with tears. She felt the agony of the eyes that weep. The blessed tears flowed quietly as the waters of Shiloh, giving relief to her poor soul, waiting for one true word of affection. Long after the sweet bells of their chime Caroline kept on waiting for him, and long after the dews of night had fallen over the beau of Beaumanoir.

CHAPTER XVI.

Angelique Des Meloises.

Come and see me to-night, Le Gardeur. Angelique des Meloises the bridle sharply as she halted the spirited horse in front of the door of the guard at the St. Louis. “Come and see me to-night: I will be at home to no one but you. Do you come ?”

And Le Gardeur de Repentigny never so laggard and indifferent over the touch of that pretty hand, the glance from the dark eye shot fire down into his very soul, would have decided him to this seductive invitation.

He held her hand as he looked up at a face radiant with joy. “I will surely come, Angelique; but tell me—”

She interrupted him laughingly: “No; I will tell you nothing till you come ! So good-by till then.”

He would fain have prolonged the interview; but she capriciously shook the reins, and with a silvery laugh rode through the gateway and into the city. In a few minutes she dismounted in front of her own home, and giving her horse in charge of a groom, ran lightly up the broad steps into the house.

The family mansion of the Des Meloises was a tall and rather pretentious edifice over looking the fashionable Rue St. Louis.

The house was, by a little artifice on the part of Angelique, empty of visitors this evening. Even her brother, the Chevalier des Meloises, with whom she lived, a man of high

life and extreme fashion, was to-night enjoying the more congenial society of the officers of the Regiment de Bearn. At this moment, amid the clash of glasses and the bubbling of wine, the excited and voluble Gascons were discussing in one breath the war, the council, the court, the ladies, and whatever gay topic was tossed from end to end of the crowded mess-table.

“Mademoiselle's hair has got loose and looks like a Huron's,” said her maid Lizette, as her nimble fingers re-arranged the rich dark-golden locks of Angelique, which reached to the floor as she sat upon her fauteuil.

“No matter, Lizette; do it up a la Pompadour, and make haste. My brain is in as great confusion as my hair. I need repose for an hour. Remember, Lizette, I am at home to no one to-night except the Chevalier de Repentigny.”

“The Chevalier called this afternoon, Mademoiselle, and was sorry he didn't find you at home,” replied Lizette, who saw the eyelashes of her mistress quiver and droop, while a flush deepened for an instant the roseate hue of her cheek.

“I was in the country, that accounts for it ! There, my hair will do !” said Angelique, giving a glance in the great Venetian mirror before her. Her freshly donned robe of blue silk, edged with a foam of snowy laces and furbelows, set off her tall figure. Her arms, bare to the elbows, would have excited Juno's jealousy or Homer's verse to gather efforts in praise of them. Her dainty feet, aspiring, and full of character as her face, were carelessly thrust forward, and upon one of them lay a flossy spaniel, a privileged pet of his fair mistress.

The boudoir of Angelique was a nest of luxury and elegance. Its furnishings and adornings were of the newest Parisian style. A carpet woven in the pattern of a bed of flowers covered the floor. Vases of Sevres and Porcelain, filled with roses and jonquilles, stood on marble tables. Grand Venetian mirrors reflected the fair form of their mistress from every point of view—who contemplated herself before and behind with a feeling of perfect satisfaction and sense of triumph over every rival.

A harpsicord occupied one corner of the room, and an elaborate bookcase, well-filled with splendidly bound volumes, another.

Angelique had small taste for reading, yet had made some acquaintance with the literature of the day. Her natural quick parts and good taste enabled her to shine, even in literary conversation. Her bright eyes looked volumes. Her silvery laugh was wiser than the wisdom of precieuse. Her witty repartees covered acres of deficiencies with so much grace and tact that men were tempted to praise her knowledge no less than her beauty.

She had a keen eye for artistic effects. She loved painting, although her taste was sensuous and voluptuous—character is shown in the choice of pictures as much as in that of books or of companions.

There was a painting of Vanloo—a lot of full-blooded horses in a field of clover; they had broken fence, and were luxuriating in the rich, forbidden pasture. The triumph of Cleopatra over Antony, by Le Brun, was a great favorite with Angelique, because of a fancied, if not a real, resemblance between her own features and the famous Queen of Egypt. Portraits of favorite friends, one of them Le Gardeur de Repentigny, and a still more recent acquisition, that of the Intendant Bigot, adorned the walls, and among them was one distinguished for its contrast to all the rest—the likeness, in the garb of an Ursuline, of her beautiful Aunt Marie des Meloises, who, in a fit of caprice some years before, had suddenly forsaken the world of fashion, and retired to a convent.

The proud beauty threw back her thick golden tresses as she scanned her fair face and magnificent figure in the tall Venetian mirror. She drank the intoxicating cup of self-flattery to the bottom as she com-

“I'm Seeing Harry Lauder All Over Again”

delightedly exclaimed a gentleman when he heard the Victor Gram-o-phone reproduce Harry Lauder's “Wearing Kilts.”

So faithful is the reproduction—so true the accent and inflection of the voice—that you can almost SEE Harry Lauder before you as these Records are played.

These are seven New Lauder Records

10 inch—75c. Each

- X 52310—The Safest Of The Family
- X 52311—Mister John Mackay
- X 52312—Wearing Kilts
- X 52313—She Is My Daisy
- X 52314—Rising Early In The Morning
- X 52315—A Trip To Inverary
- X 52316—Wedding Of Lauchie McGraw

and there are eight more. Send for the list.

Have you our latest catalogue? Sent free on request. Over 3,000 Records listed.

THE BERLINER GRAM-O-PHONE CO.

of Canada Limited,

Montreal.

66



Columbia, Victor, Edison, Berliner Gramophones, simple spring motors, not electric; a child can operate them. We sell all makes. Home Concerts and Dances always available. Every record in stock (16,000). All Columbia Disc records, now double sided, 10 inch, 85c. Columbia Indestructible cylinder records (won't break), 45c. Pianos, Organs, Musical Instruments. Cash or easy monthly payments.

Our Special Phonograph Outfit, \$24.75, including 12 records; pay

\$5 down, \$4 monthly. Fall terms for responsible people. No more dull evenings. Interesting Booklet No. 75 FREE. Biggest, Best and Busiest Music House.

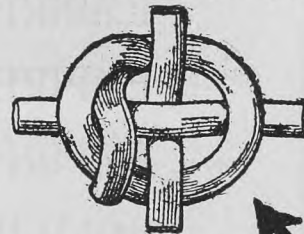


WINNIPEG PIANO CO.

295 PORTAGE AVE., WINNIPEG

Twice As Strong

Hitherto the weakest part of a woven wire fence has been the lock, but now we offer you a new fence with a lock which is the strongest part of the fence. Notice that this lock not only grips the lateral wire to stay, but the ends of the lock are curved in such a manner that the lock practically interlocks itself, making it the strongest part of the entire fence, and giving a double grip. A double-grip means a twice-as-strong lock, a twice-as-strong fence—a twice-as-good investment, and no danger of loose locks in fence, and that is well worth consideration.



We manufacture many designs of Leader woven fence both in the standard, heavy, and medium weight, using nothing but the best galvanized wire in all our fences.

We also make the old reliable Anchor field erected fence coiled spring wire, gates, etc. WRITE FOR CATALOGUE which shows different styles of fence and gates for horses, cattle, hogs, etc. A POST CARD GETS IT.

This is the best fence agency offered the dealer—GET IT.

Anchor Fence Co., Ltd.

Box 1382

850 Henry Ave., Winnipeg, Man.

THE LEADER Fence Lock

NOAH WEBSTER

DID NOT FORESEE THE COMING OF THE

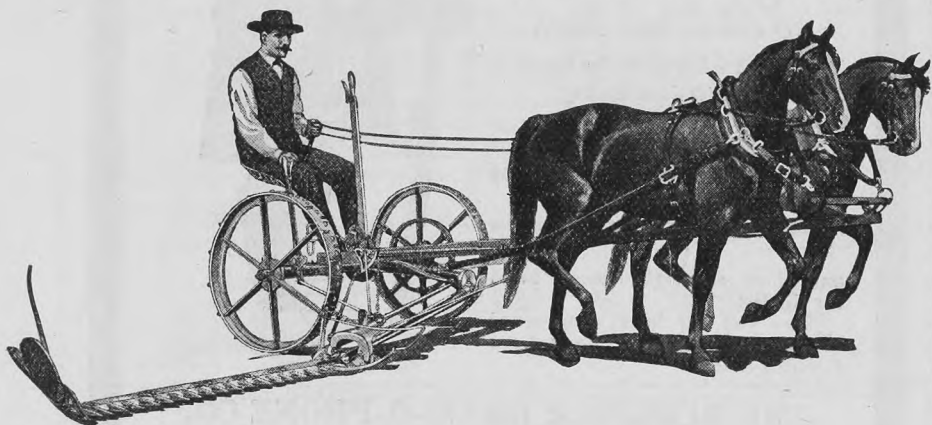
1909 Massey-Harris Mower

Or he would have told us its correct definition was

"An Unsurpassed Mowing Machine"

THE FOLLOWING FACTS PROVE IT:

Knife operates immediately wheels begin to turn. The hard edge, soft centre knife sections combine sharpness with strength. The wear on the knife back and plates is evenly distributed. We have a new Guard and Ledger Plate with full cutting edge



Massey-Harris Co., Ltd.

WINNIPEG REGINA SASKATOON CALGARY

WALL PLASTER

You will require good wall plaster on that New House.

Ask your supply man to tell you something about the EMPIRE Brands.

We Manufacture

EMPIRE Wood Fibre Plaster

EMPIRE Cement Wall Plaster

EMPIRE Finish Plaster (Improved)

GOLD DUST Finish Plaster

GILT EDGE Plaster of Paris

And Other Gypsum Products

MANUFACTURED ONLY BY

THE MANITOBA GYPSUM CO., Ltd.

Office and Mill

Winnipeg, Man.

pared herself, feature by feature, with every beautiful woman she knew in New France. The longer she looked the more she felt the superiority of her own charms over them all. even the portrait of her aunt, so like her in feature, so different in expression, was glanced at with something like triumph spiced with content.

"She was handsome as I!" cried Angelique. "She was fit to be a queen, and made herself a nun—and all for the sake of a man! I am fit to be a queen too, and the man who raises me highest to a queen's estate gets my hand! My heart?" she paused a few moments. "Pshaw!" A slight quiver passed over her lips. "My heart must do penance for the fault of my hand!"

Petrified by vanity and saturated with ambition, Angelique retained under the hard crust of selfishness a solitary spark of womanly feeling. The handsome fate and figure of Le Gardeur de Repentigny was her beautiful ideal of manly perfection. His admiration flattered her pride. His love, for she knew infallibly, with a woman's instinct, that he loved her, touched her into a tenderness such as she felt for no man besides. It was the nearest approach to love her nature was capable of, and she used to listen to him with more than complacency, while she let her hand linger in his warm clasp while the electric fire passed from one to another and she looked into his eyes, and spoke to him in those sweet undertones that win man's hearts to woman's purposes.

She believed she loved Le Gardeur; but there was no depth in the soil where a devoted passion could take firm root. Still she was a woman keenly alive to admiration,—jealous and exacting of her suitors, never willingly letting one loose from her bonds, and with warm passions and a cold heart was eager for the semblance of love, although never feeling its divine reality.

The idea of a union with Le Gardeur some day, when she should tire of the whirl of fashion, had been a pleasant fancy of Angelique. She had no fear of losing her power over him: she held him by the very heart-strings, and she knew it. She might procrastinate, play false and loose, drive him to the very verge of madness by her coquetries, but she knew she could draw him back, like a bird held by a silken string. She could excite, if she could not feel, the fire of a passionate love. In her heart she regarded men as beings created for service, amazement, and sport,—to worship her beauty and adorn it with gifts. She took everything as her due, giving nothing in return. Her love was an empty shell that never held a kernel of real womanly care for any man.

Amid the sunshine of her fancied love for Le Gardeur had come a day of eclipse for him, of fresh glory for her. The arrival of the new Intendant, Bigot, changed the current of Angelique's ambition. His high rank, his fabulous wealth, his connections with the court, and his unmarried state, fanned into a flame the secret aspirations of the proud, ambitious girl. His wit and gallantry captivated her fancy, and her vanity was fully fed by being singled out as the special object of the Intendant's admiration.

She had already indulged in dreams which regarded the Intendant himself as but a stepping-stone to further greatness. Her vivid fancy, conjured up scenes of royal splendor, where, introduced by the courtly Bigot, princess and nobles would follow in her train and the smiles of majesty itself would distinguish her in the royal halls of Versailles.

Angelique felt she had power to do all this could she but open the way. The name of Bigot she regarded as the open sesame to all greatness. If women rule France by a right more divine than that of kings, no woman has a better right than I!" said she, gazing into the mirror before her. "The kingdom should be mine, and death to all other pretenders! And what is needed after all?" thought

she, as she brushed her golden hair from her temples with a hand firm as it was beautiful. "It is but to pull down the heart of man! I have done that many a time for my pleasure; I will now do it for my profit, and for supremacy over my jealous and envious sex.

Angelique was not one to quail when she entered the battle in pursuit of any object of ambition or fancy. "I never saw the man yet," said she, "whom I could not bring to my feet if I willed it! The Chevalier Bigot would be no exception"—the voice of Angelique fell into a low, hard monotone as she finished the sentence—"were he free from the influence of that mysterious woman at Beaumanoir, who, they say, claims the title of wife by a token which even Bigot may not disregard! Her pleading eyes may draw his compassion where they ought to excite scorn. But men are fools to women's faults, and are often held by the very thing women never forgive. While she crouches there like a lioness in my path the chances are I shall never be chatelaine of Beaumanoir—never, until she is gone!"

Angelique fell into a deep fit of musing, and murmured to herself, "I shall never reach Bigot unless she be removed—but how to remove her?"

Ay, that was the riddle of the Sphinx! Angelique's life, as she had projected it, depended upon answer to that question.

She trembled with a new feeling, a shiver ran through her veins as the cold breath of a spirit of evil passed over her. A miner, bored down into the earth, strikes a hidden stone that brings him to a stand. So Angelique struck a hidden thought far down in the depths of her secret soul. She drew it to the light and gazed on it shocked and frightened.

"I did not mean that!" cried the startled girl, crossing her hands. "Mere de dieu! I did not commit a wicked thought like that! I do not! I cannot contemplate the thought. She shut her eyes, pressing her hands over them as if resolved to look at the evil thought that, a spirit of darkness, came when she would not depart when she would. She sprang up trembling, her limb, and supporting herself against the table, seized a gilded carafe and drank out a full goblet of wine. She drank. It revived her faint spirit. She drank another, and, up, feeling herself again, laughing at her own weakness.

She ran to the window, and looked out into the night. The bright moon shone overhead; the lights in the street reassured her. The passing by and the sound of wheels brought back her familiar mood, thought no more of the temptation from which she had not prayed delivered, just as the daring thief forgets the depths that underlie the thin ice over which he skims, less as a bird in the sunshine.

An hour was struck by the clock of the Recolets. The drums and bugles of the garrison sounded the signal for the closing of the city and the setting of the watch for the night. Presently a heavy tramp of the patrol was heard in the street. Sober bourgeois hurried briskly home, while belated officers ran hastily to get into quarters ere the drums ceased beating the tattoo.

The sharp gallop of a horse clattered on the stony pavement, and stopped suddenly at the door. A step and the clink of a scabbard on the steps. A familiar rap followed. Angelique, with the infallible intuition of the woman who recognizes the knock and footstep of her lover from ten thousand others, sprang up and met Le Gardeur de Repentigny as he entered the boudoir. She received him with warmth, even fondness, for she was proud of Le Gardeur and loved him in her secret heart beyond all the rest of her admirers.

"Welcome, Le Gardeur!" exclaimed she, giving both hands in his. "I knew you would come; you are welcome as the returned prodigal!"

"Dear Angelique!" repeated he, after kissing her hands with fervor, the prodigal was sure to return, he could not live longer on the dry husks of recollections."

"So he rose, and came to the house that is full and over-flowing with welcome for him! It is good of you to come, Le Gardeur! why have you stayed so long away?" Angelique in the joy of his presence forgot for the moment her meditated infidelity.

A swift stroke of her hand swept aside her flowing skirts to clear a place for him upon the sofa, where he sat down beside her.

"This is kind of you, Angelique," said he, "I did not expect so much condescension after my petulance at the Governor's ball; I was wicked that night—forgive me."

"The fault was more mine, I doubt, Le Gardeur," Angelique recollected how she had tormented him on that occasion by capricious slights, while bounteous of her smiles to others. "I was angry with you because of your too great devotion to Cecile Tourangeau."

This was not true, but Angelique had no scruple to lie to a lover. She knew well that it was only from his variation at her conduct that Le Gardeur had pretended to renew some intermitted coquetties with the Cecile. "But why were you vexed at all that night?" inquired she with a look of sudden interest, he caught a red cast in his eye, spoke of much dissipation. "You have been ill, Le Gardeur!" But he knew he had been drinking deep long, to drown vexation, perhaps, of her conduct.

"I have not been ill," replied he, "I tell you the truth, Ange-

lous, and all of it! The whole and nothing but the truth!" and rested fondly on his; no of equivocation was possible that mode of putting her love to the question. "Tell me why you were wicked that night!"

"Because I loved you to madness, and I saw myself thrust in the first place in your heart, an idol set up in my stead. Is the truth?"

"Is not the truth!" exclaimed she vehemently; and never spoke the truth if I know myself. But you don't know women, Le Gardeur," added she, with a smile, "you don't know me, the one you ought to know better than I!"

QUAKER OATS GRIDDLE CAKES TRY THEM TO-DAY!

Family that hasn't eaten Quaker griddle cakes has a delightful coming to it. Besides the flavor, there is the pleasure of knowing you can eat all you want, more you eat the better for the best of all foods for anything wanting more strength and

hundreds of thousands of packages of Quaker Oats are consumed in Germany annually and almost all of it is in the form of Quaker Oats griddle cakes. In the cereal restaurant the Quaker Oats Company, located in one of the large cities, these griddle cakes are very popular.

the best recipe for making

Quaker Oats (uncooked); 1½ cups; 1 teaspoonful salt; 1 teaspoonful soda—dissolve in two table-spoons hot water; 1 teaspoonful baking powder (mix in flour); 2½ cups milk or buttermilk; 2 eggs beaten lightly; 1 tablespoonful sugar; 2 tablespoonfuls melted butter according to richness of milk).

PROCESS: Soak Quaker Oats over night in milk. In the morning mix sift flour, soda, sugar and salt—add this to Quaker Oats mixture and quantity of melted butter; add eggs beaten lightly—beat thoroughly and cook as griddle cakes—they make your mouth water for more.

It is easy to recover affection that is not lost. Angelique knew her power, and was not indisposed to excess in the exercise of it. "Will you do something for me, Le Gardeur?" asked she, tapping his fingers coquettishly with her fan.

"Will I not? Is there anything in earth, heaven, or hell, Angelique, I would not do for you if I only could win what I covet more than life?"

"What is that?" Angelique knew full well what he coveted more than life; her own heart began to beat responsively to the passion she had kindled in his. She nestled up closer to his side. "What is that Le Gardeur?"

"Your love, Angelique! I have no other hope in life if I miss that! Give me your love and I will serve you with such loyalty as never man served woman with since Adam and Eve were created."

It was a rash saying, but Le Gardeur believed it, and Angelique too. Still she kept her aim before her. "If I give you my love," said she, pressing her hand through his thick locks, sending from her fingers a thousand electric fires, "will you really be my knight, my preux chevalier, to wear my colors and fight my battles with all the world?"

"I will, by all that is sacred in man or woman! Your will shall be my law, Angelique; your pleasure, my conscience; you shall be to me all reason and motive for my acts if you will but love me!"

"I do love you, Le Gardeur!" replied she, impetuously. She felt the vital soul of this man breathing on her cheek. She knew he spoke true, but she was incapable of measuring the height and immensity of such a passion. She accepted his love, but could no more contain the fulness of his overflowing affection than the pitcher that is held to the fountain can contain the stream that gushes forth perpetually.

Angelique was almost carried away from her purpose, however. Had her heart asserted its rightful supremacy—that is, had nature fashioned it larger and warmer—she had there and then thrown herself into his arms and blessed him by the consent he sought. She felt assured that here was the man God had made for her and she was cruelly sacrificing him to a false idol of ambition and vanity. The word he pleaded for hovered on her tongue, ready like a bird to leap down into his bosom; but she resolutely beat it back into its iron cage.

The struggle was the old one—old as the race of man. in the losing battle between the false and the true, love rarely comes out of that conflict unshorn of life or limb. Untrue to him, she was true to her selfish self. The thought of the Intendant and the glories of life opening to her heart, not the pleadings of Le Gardeur,—them she loved,—but to the granting of his prayer.

The die was cast, but she still clasped hard his hand in hers, as if she could not let it go. "And will you do all you say, Le Gardeur—make my will your law, my pleasure your conscience, and let me be to you all reason and motive? Such devotion terrifies me Le Gardeur?"

"Try me! Ask of me the hardest—and I would perform it for your sake." Le Gardeur was getting beside himself. The magic power of those dark, flashing eyes of hers was melting all the fine gold of his nature to folly.

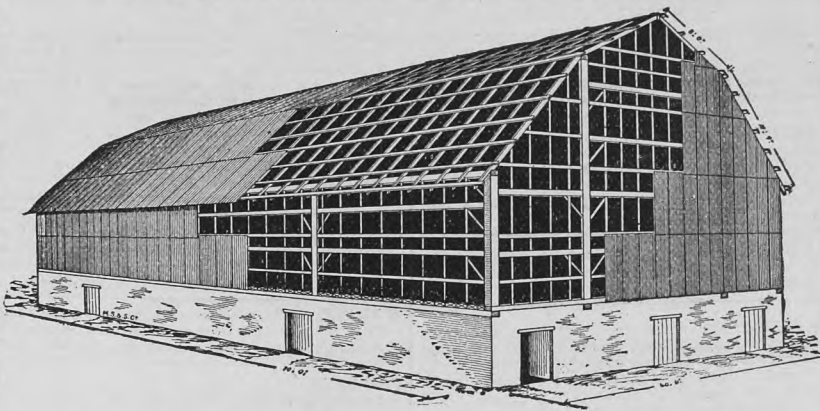
"Fie!" replied she, "I do not ask you to drink the sea: a small thing would content me. My love is not so exacting as that, Le Gardeur."

"Does your brother need my aid?" asked he. "If he does, he shall have it to half my fortune for your sake!" Le Gardeur was well aware that the prodigal brother of Angelique was in a strait for money, as was usual with him. He had lately importuned Le Gardeur, and obtained a large sum from him.

(To be continued.)

"ACORN QUALITY" GALVANIZED SHEETING

The only trade-marked Galvanized Corrugated Sheets



The above cut pictures an up-to-date barn construction, 40 ft. by 70 ft., and the method of covering with "Acorn Quality" Corrugated Galvanized Sheets. The frame is light as the corrugated sheets when nailed in place makes the building very rigid. This drawing is made from architectural plans, and hundreds of barns have been built from this plan with splendid results.

"Acorn Quality" Corrugated Galvanized sheets possess the heaviest galvanized coating obtainable, and is made from a superior quality of extra tough, mild steel, well annealed even in temper and thickness, and free from holes, cracks, blisters, and other defects.

"Acorn Quality" Galvanized Coating is of the best Silesian Zinc, leaving the surface perfectly clean, and entirely free from black spots and blemishes.

Write for our 32-page booklet which includes handsome illustrations, and also many of the best economical building points obtainable.

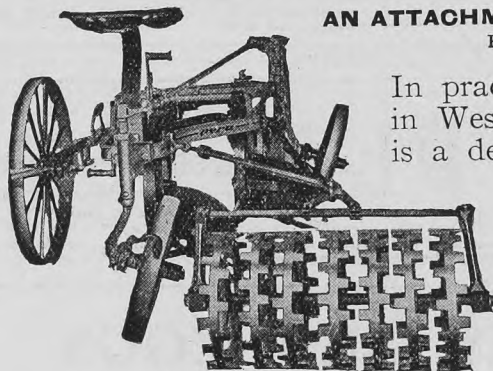
CLARE & BROCKEST

256 Princess St.

Winnipeg.

The Hamilton Pulverizer

AN ATTACHMENT FOR PLOWS
PATENTED



In practically every town in Western Canada there is a dealer handling these pulverizers. Actual demonstrations in the field are now being made proving that these pulverizers are the greatest

success on the market. See these demonstrations and be convinced. Then order. Write direct if no local dealer.

THE HAMILTON PULVERIZER CO. Ltd.

350 Somerset Building

Winnipeg

TREES

Hedge, Shelter and Ornamental

Wholesale prices for quantities strong well grown trees from the Northern forest, about 6 hours rail to Winnipeg, moss packed and protected, F. O. B. The majority of our American Larch (Tamarac) are booked for H. M. Government and other large orders, but we have about 500,000 of various kinds left for this season.

Sample 3 dozen Spruce, 3 choice varieties, \$4.00. First in every five orders received, cash returned. Cash with order. Cross, Traders' Bank, Dryden.

ADDRESS

MESSRS. DE HURST

DRYDEN, ONTARIO

WANTS AND FOR SALE

TERMS—Two cents per word per insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

WANTED—Stockmen and others to get their Printing done by THE FARMER'S ADVOCATE Mail Order Job Printing Department. Prices Quoted. Sample sent on application. Address Mail Order Dept. THE FARMER'S ADVOCATE, Winnipeg.

FARMERS write me for prices on Fence Posts. Direct from the bush and get the best. J. H. Johnson, Malakwa, B. C.

320 ACRES—2½ miles from Station, 280 acres cultivated, house and barn, \$25.00 per acre. \$2000.00 cash, balance crop payments. W. C. Presnell, Choice Saskatchewan farm lands, Dundurn, Sask.

FOR SALE—One Spanish Jack, registered, a good one, also Vick's Early Seed Potatoes. J. T. McFee, Headingly, Man.

FOR SALE—Stud Shire "Curlew" (574). Two-year-old. Reared in Range. Parents prize-winners. W. S. Black & Son, (Hardisty Station), Puffer, Alta.

FOR SALE—South African Land Grants, Half-breed Script and farm lands. S. A. Scrip is good for 320 acres in Manitoba, Saskatchewan or Alberta. Wire or write, G. S. Wyman & Co., 24 Aikens Bldg., Winnipeg, Man.

FOR SALE—The Clyde Stallion Wawanesa Chief (3211) Sire Jubilee Prince by the Worlds Champion, Prince Patrick, dam, Annie Rooney. 8 years, a very handsome thick active horse, a sure and excellent stock-getter. Others from 2 to 4 years and several Clyde fillies. Prices reasonable. Also French Coach Stallion, "Mercier", winner at Calgary of first and second in progeny class, and 1st, 2nd, and 3rd for best light foal by any registered light stallion. Bow River Horse Ranch, Cochrane Alta.

FOR SALE—Registered Aberdeen Angus bull fit for service \$60. Worth double the money. P. Hay, Lintrathen, Man.

BRITISH COLUMBIA—Send for Booklet of choice fruit and other farms, irrigation unnecessary. W. E. Hout, Real Estate, Armstrong, B.C.

FOR SALE—Early Potatoes "Flemish Beauty", for seed, one dollar per bushel. W. R. Howat, Arcola, Sask.

FARM FOR SALE—In famous Okanagan valley, 320 acres first-class level bottom land. Three hundred acres cultivated. Balance timber. Ideal land for mixed farming or stock-raising. Abundant rainfall. Perry & Jones, Vernon, B.C.

FOR SALE—Two first class saddle stallions two years old, Chestnut and Brown. Price \$400 and \$250. D. P. Woodruff, Caldwell, Alta.

CASH—For your Real Estate, Home or Business, no matter where it is located or what it is worth. I can sell it for you in the shortest possible time. I co-operate with over 10,000 experienced Real Estate Salesmen in every part of North America. If you desire a quick sale send description and price. If you want to buy property of any kind anywhere, tell me your requirements. I can save you money. Address The Real Estate Specialist, Box H, c-o Farmer's Advocate, Winnipeg, Manitoba.

FOR SALE—South African Veterans' Land Grants, good to select 320 acres in Manitoba, Saskatchewan or Alberta. Inter-Ocean Real Estate Co., 24 Aikens Building, Winnipeg.

WANTED—Whole section to rent on shares for a term of years all broken with good house, out-buildings and water. Box 61, Sedley, Sask.

FOR SALE—We have a number of rebuilt threshing engines, Portable and Traction, in first-class order we can sell much below their value. Write for particulars. The John Abell Engine and Machine Works Company, Ltd., 760 Main St., Winnipeg, P. O. Box 41.

FOR SALE—Improved large English Berkshires. Young pigs ready end of May. Six dollars each can supply pairs not akin, also White Wyandotte eggs, one dollar per thirteen. Alex. Porter, Alexander, Man.

PORTRAIT AGENTS, write us; reliable men we start in business of their own and give credit. Merchants' Portrait Co., Limited, Toronto.

CANARIES FOR SALE—All kinds of birds. The Canadian Bird Co., 178 Vaughan street, Winnipeg.

FOR SALE—20 South African Veterans' Land Grants on one to three years' time secured by mortgage on real estate. P. Whimster, Portage la Prairie, Man.

FOR SALE—Our choice Galloway Bull. Registered. Sixteen months old. C. I. Baragar, Elm Creek, Man.

WE CAN SELL your property, send description. Northwestern Business Agency, Minneapolis, Minn.

FOR SALE—100 acres good farm land on the Yale road 9 miles from New Westminster, 8 acres cleared, 50 fruit trees, small house and out-buildings, 50 acres tightly covered with scrub, 25 acres lightly covered with Alders. Price \$5,200, cash \$1,200, balance arranged, apply to A. R. Stevens, 520 Pender Street, Vancouver, B.C.

WANTED—Persons to grow mushrooms for us at home. Waste space in cellar, garden or farm can be made to yield \$15 to \$25 per week. Send for illustrated booklet and full particulars. Montreal Supply Co., Montreal.

Lost, Strayed or Impounded

This department is for the benefit of paid-up subscribers to the FARMER'S ADVOCATE, each of whom is entitled to one free insertion of a notice not exceeding five lines. Over this two cents per word.

BREEDER'S DIRECTORY

Breeder's name, post office address and class of stock kept, will be inserted under this heading at \$4.00 per line per year. Terms cash strictly in advance. No card to be less than two lines.

BANTING STOCK FARM—Clydesdales, Shorthorns, Tamworths, T. E. M. Banting, proprietor, Wawanesa, Man., Phone 85.

BERKSHIRES—Gold Medal Herd, Neepawa, Manitoba, Address J. A. McGill. 24-4

HOLSTEINS—A. S. Blackwood, De Winton, Alberta. Stock for sale.

GUS WIGHT, Evergreen Stock Farm, Napinka, Man. Clydesdales, Shorthorns and Berks. Write for prices.

T. E. WALLACE, Portage la Prairie, Man. Breeding Shorthorns of various ages for sale.

D. SMITH, Gladstone, Man., Shires, Jerseys and Shorthorns, Yorkshire hogs and Pekin ducks.

WALTER JAMES & SONS, Rosser, Man. Breeders of Shorthorn cattle and Yorkshire and Berkshire swine. Four yearling Shorthorn bulls at rock bottom prices. Now booking orders for spring pigs.

CLYDESDALES—R. E. Foster, Melita, Man. Stock for Sale.

JAS. BURNETT, Napinka, Man. Breeder of Clydesdale Horses. Stock for Sale.

GEORGE LITTLE, Neepawa, Man.—Shorthorn of best Scotch type. 24-4

H. C. GRAHAM, Lea Park, Alta.—Shorthorns—Scotch Collies and Yorkshires, for sale. 1-4-09

JAS. BRAY, Portage la Prairie. Choice Hereford cattle and Berkshire swine for sale. 20-t

JAMES A. COLVIN, Willow Dell Farm, Sedgewick, Alta., Breeder of Shorthorns and Berkshires.

W. J. TREGILLUS, Calgary, Alta. Breeder of Holstein cattle and Yorkshire swine.

HEREFORDS—At half price from Marples' famous Champion Prize Herd. Calves either sex; Heifers, Cows, Bulls. Good for both milk and beef. J. E. Marples, Poplar Park Farm, Deleau, Man.

SHETLAND PONIES and Hereford cattle, finest in Canada, also Berkshire pigs. J. E. Marples, Poplar Park Farm, Deleau, Man.

WOODMERE FARM—Clydesdales, Shorthorn and Yorkshires. Pigs at 8 weeks, f. o. Neepawa, \$8 apiece. S. Benson.

BROWNE BROS., Ellisboro, Assa.—Breed Polled Angus cattle. Stock for sale.

McKIRDY BROS., Mount Pleasant Stock Napinka, Man. Breeders and Importers of Clydesdales and Shorthorns. Stock for sale.

National Live-stock Records by T. Hitchman, Registrar.

GOSSIP

Mr. Norman Jaques, of Ingleton, Alta., writes us, under recent date, as follows: "Having sold out of stallions at the Calgary Show, we have none to sell at present. My brother, just returned from Suffolk, says it is impossible to buy a carload of young studs there now; but, of course, we have made arrangements over there for anything promising, and we shall import another lot as soon as they are collected. We are more than pleased with the result of the show at Glasgow, and without boasting the Suffolks were the feature. We also sold a team of mares to P. Burns for a very high figure. These mares were not placed in their class when shown in halters, but next day, in harness, they received reserve championships, for, in spite of weak joints and small feet! they could and did out move any team there.

"If you were to go to Suffolk you would find that the toughness of the Suffolk extends to their legs and feet, and if they are not to the eye of the Clydesdale breeder, it shows the futility of judging the use of a work horse in the show-ring. In addition to size, docility, easy keeping qualities, the Suffolk wears longer and works faster than any other draft breed, 'que vouley-vous!'"

The Dominion Shorthorn Breeders' Association has just issued Vol. 25 of their herd book. The volume contains the pedigrees of 7,526 animals, 3,613 bulls and 3,913 cows, being all those received for registry between January 1st and December 31st, 1908. The pedigrees which were destroyed by fire in 1894 are also given in this volume. Only 59 imported animals are recorded. The distribution of the animals recorded by provinces are: Ontario, 4,315; Manitoba, 1,098; Saskatchewan, 387; Alberta, 635; British Columbia, 45; Quebec, 268; New Brunswick, 42; Nova Scotia, 107; Prince Edward Island, 35; United States, 106. In the same order, the memberships stand: 977, 247, 93, 103, 14, 43, 4, 16, 9, 6. A list of the members is given, also the minutes of the 22nd annual meeting, held on Feb. 4th, 1908. The volume is edited in the Office of the Canadian

Through the courtesy of the tary of the American H. Breeders' Association, Mr. Thomas, Kansas City, Mo., received Vol. 32 of the Record. This volume records animals, and gives an index of sers and animals. The Hereford model of conciseness and typical excellence, and containing well-executed half-tone illustrations.

The minister had just a little opening talk to the preparatory to the morning when Mrs. Berkeley suddenly with all the agony of a cap wife, that she had forgotten the gas off from the oven she had left a nicely cooked ready for the final reheating. of a ruined dinner and kitchen roused her to in effort, and borrowing a pen the young man in front, she a note. Just then her husband of the church, passed with a murmured "Hurry thrust the note into his hand with an understanding not passed up the aisle, and a note to the minister. Mrs. saw the act in speechless he shuddered as she saw the smilingly open the note and read. But her expression of was fully equalled by the amazement and wrath on the man's face as he read the words.

WALKING RECORDS
E. P. Weston, the seventy-old pedestrian, famous both continent and in Europe for ing records, is at present from Albany, N. Y., to San cisco, a distance of 4,300 miles to make the distance in 100 Sundays excluded, demand average of 43 miles per day. has been doing walking stunts past 42 years, and his long-distance walking has never approached. In October, 1900, walked from Portland, Maine, Chicago, a distance of 1,234 miles in 26 days. October, 1868, 100 miles in 19 hours 19 minutes 10 seconds. January and February, 1869, from Gor, Me., to Buffalo, 1,058 miles, in 26 days. May, 1871, St. Louis, 200 miles (two miles backward), 41 hours.

POULTRY AND EGGS

RATES—Two cents per word each insertion. Cash with order. No advertisement taken less than fifty cents.

R. P. EDWARDS, South Salt Springs, B. C. Eggs for hatching from the following breeds: R. C. R. Island Reds, Blue Andalusians, Black Minorcas, Buff Rocks, Indian Runner Ducks, at \$1.50 per setting. Stock for sale.

LITTLECOTE POULTRY YARDS—Pure bred Barred P. R. eggs. Warranted to hatch a good percentage of strong chicks. \$1.50 for fifteen eggs. Incubator cap, special rates. Few Cockerels left. Mrs. M. Vialoux, St. Charles, Man.

WHITE WYANDOTTES—Duston Strain. Prize winners wherever shown. Cockerels \$2.00 up. Eggs \$2.00 per 15, Box 1063 Regina, W. H. Rothwell.

LAYING STRAIN—Buff and White Wyandottes and Brown Leghorns. Eggs: Fifteen, one fifty; thirty, two fifty. J. E. Sinclair, Stonewall, Man.

BUFF WYANDOTTE stock for sale also two Buff Cochins. J. E. Sinclair.

PURE BRED—Thoroughly acclimatized, farm-raised Rose and Single Comb Brown Leghorns, Single Comb White Leghorns; Pekin and Rouen duck eggs, \$1.00 per setting. Toulouse and Embden geese; Mammoth Bronze and White Holland Turkeys, 25 cents per egg. White African and Speckled guinea fowl; and White Cochins Bantams, \$2.00 per 13. A few pairs of fine Belgian hares, \$2.00 pair, younger ones, \$1.00 pair. Mrs. John Howe, Box 50, Watson, Sask.

SINGLE COMB BROWN LEGHORNS—Champions Winnipeg, Portage, Brandon, Regina. Look up Winnings. Two pens—one fifty, two dollars, fifteen eggs. W. A. Harron, Sperling, Man.

EGGS FOR SETTING—From pure-bred S. C. White Leghorns and Barred Rocks; have some fine pens of winter layers; city address C. H. Baird, 265 Portage Ave., Winnipeg.

PRIZE WINNING White Wyandotte eggs for sale, \$1.00 per dozen. \$3.00 per 4 dozen. \$6.00 per hundred. Also young and old birds in fall. Rev. W. Bell, Abernethy, Sask.

BARRED ROCK EGGS—15 for \$2. County Champions. Two pens of select females, headed by a Bradley cock and a Hawkins cockerel. Nine chickens or another setting at half price. W. R. Barker, Deloraine, Man.

CHOICE BARRED PLYMOUTH ROCKS, \$1.00 and \$1.50 per setting. Five dollars per hundred. W. H. Tebb, Langenburg, Sask.

SINGLE COMB—White Leghorns. Eggs from two pens (not related) large birds. Heavy winter layers, \$2.00 per setting. Three for \$5.00. A. C. McLeeman, Crystal City.

C. W. ROBBINS—Breeder. Laying strain Buff Orpingtons. Eggs, \$2.00—15. Chilliwack, B. C.

RHODE ISLAND REDS—White Plymouth Rocks and White Wyandottes. Western raised from imported prize-winning stock. Eggs, \$2 and \$3 per 15; \$10 per 100. Day old chicks a specialty. Geo. W. Bewell, Abernethy, Sask.

BUFF ORPINGTON EGGS—\$2.00 per 15; \$6.00 per 100. J. E. Marples, Deleau, Man.

FOR SALE—Pure-bred Buff Orpington eggs, \$1.00 per setting of 13. W. H. Read, Nanton, Alta.

June 12-16, 1871, New York, 400 miles, 4 days 23 hours 32 minutes.
 Oct. 14, 1871, Macon, Ga., 50½ miles, including one-half mile backward, 8 hours 49 minutes 45 seconds.
 May 11-16, 1874, New York, 430 miles.
 June 17-30, Philadelphia, 200 miles, 14 hours.
 Dec. 14-19, Newark, N. J., 500 miles, 5 days 23 hours 28 minutes.
 January, February, March, 1886, the Dan O'Leary in various cities, 600 miles; beat O'Leary 200 miles.
 December, 1893, Battery, New York, Albany, 160 miles, 59 hours 59 minutes.
 December, 1896, New York, 103 miles, 23 hours 59 minutes.
 May 23, 1906, Philadelphia to New York, 100 miles, 23 hours 54 minutes.
 Oct. 29, 1907, Portland, Me., to Chicago, 1,234 miles in 25 days.
 In England, Feb. 8-9, 1876, 110 miles, 24 hours.
 Feb. 16-18, 1876, 180 miles, 24 hours.
 Feb. 23-26, 1876, 275 miles, 75 hours.
 March 6-11, 1876, 450 miles.
 June 19-25, 1876, 450 miles.
 Oct. 25-30, 1876, 500 miles.
 Dec. 12-17, 1877, 330 miles, three days backward, 72 hours.
 Jan. 2-7, 1877, 510 miles, 5 days, 12 hours.

the Rio Grande to Seattle, and from Chicago to San Francisco, intersect a vast territory. In the meantime, Messrs. Armour & Co. are getting together a new team. A life of ease is promised the old horse Jim at the close of his memorable career in the show-ring.

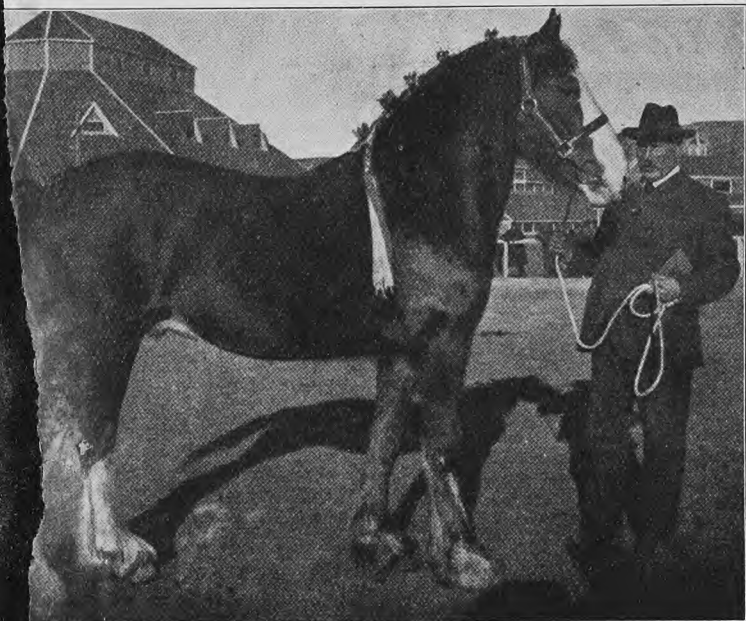
A GREAT THOROUGHBRED SIRE

An inadvertent misstatement occurred in connection with our report of Mr. R. M. Dale's importation of Thoroughbreds in the April 21st number. In place of the horse Manuel being described, there should have been a description of a much more notable sire.

By reference to his papers, Mr. Dale finds he has secured "Azra," by Reform, out of Albia, by Alarm. He won the Champagne Stakes, the Kentucky Derby, the Clark and Travers Stakes, and many other races. This is one of the grandest race horses ever brought to Western Canada, and Mr. Dale has been congratulating himself that he has got possession of such a sire.

* * *

Some enormous figures are contained in a report upon the destruction of rabbits prepared by the Chief Inspector of Vermin in Australia. During the last five-yearly period, 41,423,000 frozen rabbits were exported, and 98,242,000 skins, while 5,000,000 skins went into local con-



TWO-YEAR-OLD CLYDESDALE STALLION, "MASTERPIECE."

In his class, first for Canadian Bred Stallion, any age, and reserve for Championship, Calgary Spring Show, 1909. Bred by John A. Turner. Property of Bryce Wright, De Winton. Sire, Consul by Baron's Pride.

1877, 400 miles, five days, re- July and September.

1878, 1,000 miles, 400 con- hours.

Glasgow, 1,500 miles in S.

1879, won Astley belt, 550 1 hours 44 minutes.

1, 1883, to March 5, 1884, for of England Temperance So- walked 50 miles a day for 100 days not included, over roads and hills, and delivered lectures daily.

* * *

March 5th, the Armour six- team of Percherons, with Wales and the big yellow took the road from Chicago on most extensive advertising tour sort ever undertaken. It will the road until late next au- travelling all over the West and est. The team will be com- of Mack and Dude, leaders; and Star in the swing, and the pair of wheelers shown at the International. Big Jim is to be taken along, to have a good time in sort of retired old gentleman fash- getting all he wants to eat, a comfortable place to sleep, and daily exercise in the parades. How many thousand miles will be travelled be- the team comes home again it is had to say, but lines drawn from

sumption, making a total of 103,242,000. The net total of exported skins for five years has been 67,838,000, or a yearly average of 13,567,000 skins, which Mr. Allan says represent rabbits that would consume as much grass as 1,500,000 sheep.

THE TOBACCO HABIT

The mother who desires to convince her boys that the tobacco habit is unadvisable should be careful that her statements are such as will not be contradicted by their observation of men who are addicted to this practice. Extreme assertions to the effect that the use of tobacco is deadly, leads the boys to think later that the mother spoke from prejudice and not from knowledge. There is enough that is rational and probable to be said against tobacco, and these facts calmly stated will convince the reason and judgment of the boy.

We are quite certain that the use of tobacco in all cases is a superfluity; it is not necessary either to health or happiness. It is legitimate that we reason with boys against the formation of useless habits; as reasonable beings who are to aim at successful and happy lives they should learn at the start that doubtful or needless habits become incumbrances, become like burdens that the foot traveller has to carry. When men have to enter battle they carry as little as may be that is likely to

HAIL! HAIL! HAIL!

Loss Claims paid last year \$30,152.89

Paid last five years - \$302,866.24

Plans of Insurance Same as in 1908

Average Rate of Assessment six years, 16½c, per acre

Have now \$1,600,000.00 Insurance in force

Assessment governed by amount of loss

SURPLUS ASSETS \$23,339.00

Including premiums on Insurance now in force over \$87,000.00

NO LIABILITIES

Cash Deposited with Government \$5,000.00

The Company is now stronger financially than ever before.

For further information see our agent, or write.

The Manitoba Farmers' Mutual Hail Insurance Co.

W. C. GRAHAM, Manager, Winnipeg

Box 1147



Bruce's New Century Swede Turnip

Sales season 1901, when first introduced 16 lbs.; 1906, 9370 lbs. The best all-round variety. It is one of the few Swedes that resist mildew, the best shipping variety, and for cooking purposes cannot be excelled by any other Swede. It is a purple-topped variety resembling Westbury, of splendid uniform growth, of fine quality, a heavy cropper and the roots are clean and of handsome shape. In sections where large quantities are grown for the American market, the Growers and Shippers will have no other: one-fourth pound, 12 cents; one-half pound, 18 cents; one pound, 30 cents; four pounds for \$1.15 postpaid.

Bruce' Mam. Inter. Smooth White Carrot

Sales season 1891 when first introduced 14 pounds, now 1352 pounds. The best of all field carrots and invaluable for horses. This grand half long Carrot is of large size, solid, productive, of finest quality, a splendid keeper, and has the advantage of being much more easily harvested than the old long varieties. One-fourth pound, 17 cents; one-half pound, 33 cents; one pound, 55 cents. Postpaid.

Send for our handsomely illustrated 100 page catalogue of Vegetable, Farm and Flower Seeds, Plants, Bulbs, Poultry Supplies, Garden Implements, etc.—FREE.

J. A. BRUCE & Co. Seed Merchants Established 1850 Hamilton, Ont.



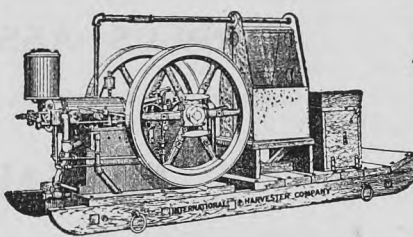
hinder freedom of action. Soldiers on long marches take only what is essential. The boy must learn that the less he is encumbered by needless habits the better are his chances of success.

The boy should know that the red Indians, from whom we imitated the use of tobacco, never allowed their own boys to touch the weed until they were full grown and had been on their first warpath; the Indians in their natural condition, before the white men depraved them, were one of the healthiest races in the world; they had extraordinary powers of endurance, and they knew much about simple laws of health. They knew from ages of experience with tobacco that, whatever its effect on mature persons, it was not good for growing youths. The youth had to leave it alone until he had become a young man and had proved his endurance by going with the warriors to battle. This ought to be enough to influence any boy who is ambitious to be well and strong to let tobacco alone at least until he is of age. The Indians were keen observers and so far as taking care of themselves for hunting and for war knew much about nature. Then as to the practice for grown men among them, we must remember that with the Indians the smoking of tobacco was originally a religious ceremony; it was like the offering of incense. In their smoking of the pipe of peace, they passed the pipe from hand to hand around their circle and only took a puff or two each. It is probable that the uncorrupted Indians did not make a practice of smoking constantly, as many white men do, and as perhaps the degenerate Indians now do.—Home Magazine.

ALBERTA FAIRS

The following are the dates set by the annual convention of the Alberta Agricultural Fairs Association for the fairs to be held in Alberta in 1909:

Edmonton, June 29 and 30, July 1 and 2.
Calgary, July 5, 6, 7, 8, 9 and 10.
Innisfail, July 12 and 13.
St. Albert, August 3.
Fort Saskatchewan, August 4.
Olds, September 13 and 14.
Claresholm, August 3.
Macleod, August 4, 5 and 6.
Lethbridge, August 10, 11 and 12.
Leduc, September 21.
Daysland, September 22 and 23.
Sedgewick, September 24.
Lloydminster, September 27.
Innisfree, September 28 and 29.
Vegreville, September 29.
Vermilion, Sept. 30 and October 1.
Viking, October 5.
Raymond, September 16 and 17.
Nanton, September 20 and 21.
Pincher Creek, September 22.
Magrath, September 23 and 24.
Cardston, September 28 and 29.
Taber, September 30.
Irvine, October 1.
Didsbury, October 5 and 6.
Ponoka, October 6 and 7.
Lacombe, October 7 and 8.
Three Hills, October 12.
Pridis, October 14.
Alix, September 29.



Needed on Every Farm

How a Reliable Engine Economizes Labor

Of course, you, like other farmers, want to economize your time.

Think in how many places a power would be a help to you—would save time and work—if you had it in a handy form ready for use in a minute.

Think how much hard work it would save you in cutting feed—in sawing wood, posts or poles—in running the cream separator or churn—in operating shop or other machinery.

The I. H. C. gasoline engine is a power that is always ready at your hand. It is not necessarily stationary, like the windmill, and on that account adapted to doing only one kind of work.

The engine is built in many styles—there are portable engines on trucks and skidded engines which can be moved wherever the work is to be done. Then there are stationary engines, both vertical and horizontal, in sizes from 1 to 25-horse-power, air cooled and water cooled, and also gasoline traction engines 12, 15 and 20-horse-power. Besides, there are special sawing, spraying and pumping outfits from which you can select an outfit

The engines are simple in design so that they can be easily understood.

They are strong and durable—constructed with a large factor of safety, inasmuch as they have greater strength than would ordinarily be required. Yet they are not clumsy or too heavy.

All parts are accessible and easily removed and reassembled. Every engine will develop a large per cent of power in excess of its rating—you get more power than you pay for.

They are absolutely reliable—you cannot find one inefficient detail. They are unusually economical in fuel consumption—less than a pint of gasoline per horse-power per hour. This means that a 2-horse power engine will produce full 2-horse power for five hours on only one gallon of gasoline.

Would it not be a wise plan for you to investigate and learn how an I. H. C. engine will save time and lighten the labor on your farm?

International local agents will supply you with catalogs. Call on them for particulars, or write the home office.

CANADIAN BRANCHES: Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg
International Harvester Company of America, Chicago, U.S.A.
(Incorporated)

UP-TO-DATE PRINTERS

WE are printers of all work desired by the UP-TO-DATE farmer such as Bill Heads, Envelopes, Cards, Catalogs, Booklets, etc. Send in your order and we will, if desired, submit an estimate.

Farmer's Advocate of Winnipeg Ltd.
Winnipeg, Manitoba

Milnerton, October 6.

Wetaskiwin, September 30 and October 1.

Gleichen, August 19 and 20.

A LESSON FROM A MIXED FARMER

A correspondent at Gilbert Plains, Mr. J. R. Dutton, sends us a clipping from the Chester (Eng.) "Chronicle," the moral of which, he thinks, is good for many Manitoba farmers, and, as we think so too, we reproduce it herewith. Mr. Dutton says:

"There is much in this of interest to dairymen, especially that part dealing with the care of the cattle. If Mr. Shepherd's plan was followed I do not think there would be much trouble with impure milk or tainted butter, and the animals would be entirely free from diseases, such as tuberculosis, etc.

"Possibly as the article contains so much valuable information on general farming, you may find room for it on some future occasion. The Old Country farmer is not so slow after all if Mr. Shepherd is a fair sample."

Parkside Farm, Aston, Preston Brook, the home of the courageous Mr. Robert Shepherd, is well worth a visit. Even on a cold February day when nature adds little to the charm there is here much to interest and educate. We are farmers visiting a farmer, not with the object of describing our visit in "The Chronicle," just desirous of seeing one of the largest dairy herds in the U. Kingdom, and hearing from the owner of his methods; we saw, and heard, and were in no way disappointed. Mr. Shepherd has been tenant here 11 years. The history of this previous to Mr. Shepherd's tenancy was a lamentable one. That scourge, which we regret to still with us (we refer to animals) had played havoc among the livestock to such an extent that for two years the place remained tenantless. Surely a testimony to Mr. Shepherd's indomitable character that he ventured to stake his all upon a farm with such a disastrous history may interest many readers if we scribe Park Side as we find it. Eleven years of strenuous work has brought about a reform and a deed.

With an area of 427 acres, a ring fence, a soil of good sand, it gives ample scope for mixing. Mr. Shepherd is a producer, and supplies from 3,000 to 4,000 gallons of milk per week the year round, to the Runcorn Widnes Co-operative Society. Some part of this is from a farm which Mr. Shepherd has inherited. We were not surprised, therefore, to find a rotation of crops providing the necessary food for winter and summer milk production. Crops 70 to 80 acres with earwigs, which permits of a second crop of cabbage. He grew 50 acres of these last season, from which in October he has taken a daily eight to ten tons, and we saw several acres of good "hearts" yet remaining. Hay and silage are the produce of 24 acres; he has also six acres of Swede.

"Just have a look at the potatoes," said our host, and we went from the ground floor of one of the buildings, or loft, to three ranks of buildings which rounds another yard on a lower level. Here we saw stacked, 12 boxes the whole floor covered, just a room for inspection, 5,000 boxes of early potatoes—a sight worth a visit to those interested in this branch of agriculture, all beautifully sprouting of the best known varieties, safe from the frost, and in a temperature that could be altered to their requirements. The inspection of the tubers was just a preliminary as we waited the arrival of a party. Our delinquent friend having now arrived, we proceeded to inspect the dairy cattle. Whether he talks like it or not, Mr. Shepherd is a man who keeps cows; two hundred and fifty of them we saw, well housed, well groomed, well fed. They are mostly of Irish extraction, not over big, but well selected and showing excellent milking properties, and

mostly quite young animals. Mr. Shepherd feeds off all his stock while they are in quality, but is no better in the "one note" system. He has about 20 calves each season, and his calves to regulate his milk supply to his customers' requirements. He feeds abundantly with corn, supplementing his home-grown wheat and its with Indian meal (best-quality corn), and decorticated cotton meal. The cows get three rations of this per day, after milking in the morning, again when tied up after milking in the form of mash, and again before evening milking. Besides this, of course, they get abundant rations of hay, roots, and cabbage. The cows are turned out 50 minutes in the forenoon, and have access to an abundant supply of good water in troughs so constructed that the animals cannot themselves contaminate it. The cattle sheds, more than half of which have been erected by Mr. Shepherd at his own expense, are well constructed, allowing ample room on the floor surface. The ventilation is perfect; our friend has his own ideas about this, and declares that light and efficient ventilation are more important than actual air space.

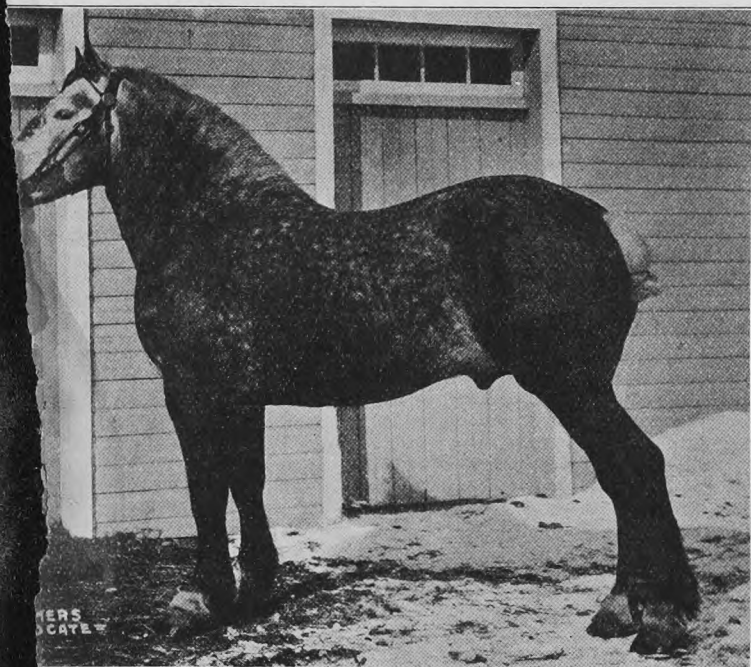
Now come to Mr. Shepherd's ideas of cleanliness, sanitation, and prevention, as preventative measures against the contraction and spread of tuberculosis in his herd. "Preven-

accommodation is available for laborers. It is worthy of note that there should be no labor problem involved. One so often hears farmers remark that they cannot get men unless they are provided with beer at harvest time. Mr. Shepherd contradicts this, as he states that he has not given his men a pint of beer since he came to the farm.

To sum up, we regard our friend as a thoroughly practical and efficient farmer, and as an exponent of modern methods of milk production he has few equals. We discussed with him the scheme which he advocates for the eradication of tuberculosis from bovines. His arguments are backed up by practical experience. Mr. Shepherd as a farmer knows full well the value of systematic prevention; his conclusions are the outcome of experiments which he has carried out, as he says, from the standpoint of making it pay, and after all, in the consideration of this great question, the commercial aspect of the schemes advocated, is one of vital importance to us, who will have to assist in carrying out the measures decided upon. That something must be done is unquestionable.

TRADE STILL HOLDS GOOD IN CLYDESDALES AT CRAIGIE MAINS

In a recent letter to the "Advocate" Messrs. Mutch say: "Our



PERCHERON STALLION DOCTUER.

and at the Regina Spring Stallion Show. Six years of age, owned by W. C. Swanston, Pense, Sask.

rather than cure," says he, "I doubt he practises what he preaches. The shippens are sprayed with a powerful disinfectant, and then lime washed. The floor surface is twice a day covered with powdered lime and chloride of lime. If the horse shows signs of tuberculosis once isolated, and the stallion is isolated before being again used. We were much struck with the cleanliness of the cattle. They are clean in this respect, and stood in clean wheat straw like hun-

Mr. Shepherd's preventative measures are a very important part in the operations which he takes to produce milk. We noted with interest the commencement of the operations. Each milker is provided with a large overall which is required to wash his hands before commencing to milk. A disinfectant is used by the milkers, and armed with a brush cleanses each cow's udder between milking. Between fifteen to eighteen milkers are employed, all men; "women will not be used," says Mr. Shepherd. Stripping is not practised, an inspection of the udders after the operation is all that is considered necessary in this respect. Shepherd has no difficulty in finding milkers; he employs regularly 10 men. There are nine cottages on his farm, so that a fair amount of

sales still keeping brisk. We have sold, since writing you, the following: A first-class colt to W. H. Dodds, of Cut Knife; to John Simpson, of Moose Jaw, Earl Bombie, by Baron Hood, a big, thick colt; to Fred Brook, of Elgin, Man., the good horse. Lord Middleton, by Royal Favorite. This is a young horse that was a lot thought of at Regina and Brandon shows. He is one of the fleshiest-legged horses that ever graced a western show-yard, and, in another year, he should stand well to the front. Mr. Brook, in selecting this horse to head his valuable stud, has displayed excellent judgment. He had just previous to this bought the three good mares, Lady Eva, Gay Jess and Lady Marshall, and was so well pleased with them that he ended in adding Lord Middleton. To R. H. Miller, of Lumsden, two fillies, Sturdy Rose and Trolene Nell. The first-mentioned was sired by the great breeding horse, Prince Sturdy, and is out of a Baron's Pride mare. She won two first prizes in Scotland, and was an easy winner in her class at Regina. We do not hesitate in saying that this filly is one of the best animals that ever passed through our hands, and, should she do well in Mr. Miller's hands, we predict for her a great show-yard career."

[Craigie Mains is one of the best places to go to get good Clydesdales. —Ed.]



CONGO

THE ONLY ROOFING GUARANTEED BY A

SURETY BOND

IT PROTECTS YOU ABSOLUTELY

A Guarantee Without a Loophole

When we used to say that Congo 3-ply would last ten years people laughed and replied that "Everybody claimed that." When we offered to guarantee such service they said "Guarantees mean nothing—the buyer can never enforce them."

So we went to the National Surety Co. and paid them a large cash premium to issue a Surety Bond with every roll of Congo Roofing.

These bonds give our customers a real, substantial guarantee as good as a government bond.

If the customer's own lawyer drew the guarantee he could not devise

an instrument that would give any better protection.

It is because Congo is so tough, perfect and durable that the National Surety Company is willing to stand back of it. They know that we use the best materials and the best methods and that we watch and inspect every roll. Then we wrap it for domestic use just as carefully as if it were destined for Madagascar or Thibet, and you get perfect, undamaged rolls every inch of which you can use.

The man that buys Congo gets the most value for his money and takes no chances.

We will send you a copy of that guarantee on request—also a sample of Congo Roofing free.

UNITED ROOFING AND MFG. CO.
PHILADELPHIA, PA.

Successor to
Buchanan Foster Co.

MILLER-MORSE HARDWARE CO., Winnipeg

E. G. PRIOR CO., LTD., Victoria

Where is

SALMON ARM

Located?

You Want Facts

THERE ARE THOUSANDS OF ACRES AWAITING DEVELOPMENT. BUY WHILE PRICES ARE WITHIN REACH.

Nineteen miles Southwest of Sicamous Junction, and 316 miles Northeast of Vancouver, on the Main line of the Canadian Pacific Railway.

Where the soil is particularly adapted to growing Winter Apples.

Where there is an abundance of Rainfall, sufficient for the production of the finest **FRUIT**, vegetables, and hay.

Where the shipping facilities are of the **BEST**.

Where the climate makes life worth living.

Where you can invest your money **NOW**, and enjoy a comfortable home in your old age.

Where the waters of Shuswap Lake are an inexhaustible source of pleasure, and a valuable means of communication.

Write for illustrated booklet; it is a pleasure to have you investigate fully.

THE SALMON ARM REALTY CO.
SALMON ARM B.C.

IF YOU WANT CASH

For Your Farm, Home or Business

I CAN GET IT. No matter where your property is located or what it is worth.

If I did not have the ability and facilities for promptly disposing of your property at a good price, I could not afford to spend \$25,000 a year in advertising that I can do so. My office is a veritable clearing house for real estate and properties of all kinds and my whole energies are centered on finding people who want cash for their real estate or real estate for their cash. And I Do Find Them. My advertising each month brings me hundreds of enquiries from people who want to buy and sell. In the average business day I sell more properties than many real estate brokers sell in six months. But before I can sell properties I must list them. I want to list yours and Sell It. If you want to sell any kind of real estate in any part of North America, send me a brief description, including your lowest cash price. If you want to buy, tell me your requirements.

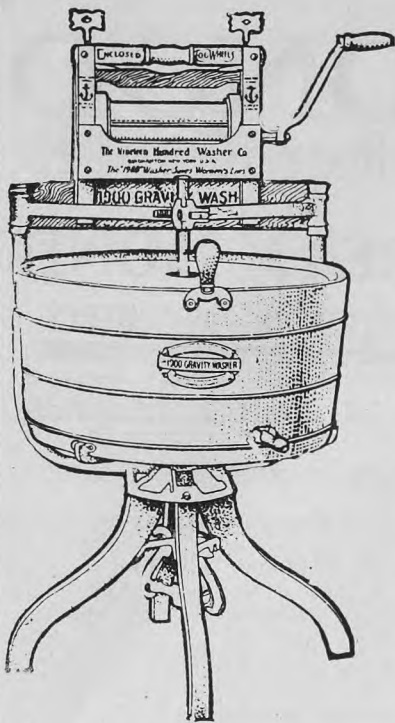
Upon receipt of the necessary information, I will write you fully and frankly, stating just what I can do for you, and how, and why I can do it. Please enclose a 2-cent stamp for reply, and address,

THE REAL ESTATE SPECIALIST

BOX H.

14-16 PRINCESS ST.

WINNIPEG, CANADA.



Let this Machine do your Washing Free

See the "S" shaped swing links beneath the tub.

These links do nearly all the hard work when once you start them going. And this washing machine works as easy as a bicycle wheel does.

There are slats on the inside bottom of the tub.

These slats act as paddles, to swing the water in the same direction you revolve the tub.

You throw the soiled clothes into the tub first. Then you throw enough hot, soapy water over the clothes to float them.

Next you put the heavy wooden cover on top of the clothes to anchor them.

This cover has slats on its lower side to grip the clothes and hold them from turning around when the tub turns.

Now we are all ready for quick and easy washing.

You grasp the upright handle on the side of the tub, and with it you revolve the tub one-third way round.

The machine must have a little help from you at every swing, but the motor links do practically all the hard work.

You can sit in a rocking-chair and do all that the washer requires of you. A child can run it easily full of clothes.

When you revolve the tub the links cause it to move up and down as it swings—the clothes don't move.

But the water moves like a mill race through the clothes.

The paddles on the tub bottom drive the soapy water through and through the clothes at every swing of the tub. Back and forth, in and out of every fold, and through every mesh in the cloth, the hot, soapy water runs like a torrent. This is how it carries away all the dirt from the clothes, in from six to ten minutes by the clock.

It drives the dirt out through the meshes of the fabrics without any rubbing—without any wear and tear from the washboard.

It will wash the finest lace fabric without breaking a thread or a button, and it will wash a heavy, dirty carpet with equal ease and rapidity. Fifteen to twenty garments, or five large bed sheets, can be washed at one time with this "1900 Gravity" Washer.

A child can do this in six to ten minutes better than any able washer-woman could do the same clothes in twice the time, with three times the wear and tear from the washboard.

This is what we say; now, how do we prove it?

We send any reliable person our "1900 Gravity" Washer, free of charge, on a full month's trial, and we even pay the freight out of our own pockets.

No cash deposit is asked, no notes, no security.

You may use the washer four weeks at our expense. If you find it won't wash as many clothes in four hours as you will wash by hand in eight hours you send it back to the railway station—that's all.

But if, from a month's actual use, you are convinced it saves half the time in washing, does the work better, and does it twice as easily as it could be done by hand, you keep the machine.

Then you mail us 50 cents a week till it is paid for.

Remember that 50 cents is part of what the machine saves you every week on your own or on a washer-woman's labor. We intend that the "1900 Gravity" Washer will pay for itself, and thus cost you nothing.

You don't risk a cent from first to last, and you don't buy it until you have had a full month's trial.

Could we afford to pay freight on thousands of these machines every month if we did not positively know they would do all we claim for them? Can you afford to be without a machine that will do your washing in half the time, with half the wear and tear of the washboard, when you can have that machine for a month's free trial, and let it pay for itself? This offer may be withdrawn at any time it overcrows our factory.

Write to-day, while the offer is still open and while you think of it. The postage stamp is all you risk. Address me personally on this offer, viz.: A. W. W. Bach, Manager "1900" Washer Company, 357 Yonge street, Toronto, Ont.

Winnipeg Branch: C. W. Tanney, 459 Sherbrooke St.

Questions & Answers

DEPTH OF SEEDING

What depth should I sow seed wheat on moderate light land?
Sask. C. A. P.

Ans.—See special article on "Hints from growers of prize wheat" in the March 31st number. About one and one-half inches should be right in most seasons.

PAYING FOR HORSES

I bought three horses for \$600. I paid down \$100 cash, then \$100 more in six months. I had the horses three weeks when one died. At the end of nine months another died, then in twelve months the third one died. The seller has a note from me of \$400. Can he take other horses from me, or get a lien against my crop? What is the best thing I can do to settle the deal?

M. K.

Ans.—In buying the horses there was a promise made in all good faith that they would be paid for. When a man sells a horse he sells it on its face value. He cannot guarantee that it will live a minute after it is sold, and when a man buys a horse he takes the risk of it living. Also a buyer is supposed to know whether the horse he buys is sound, and in good health or not. Under those circumstances you are legally liable for the amount of the value of the horses.

But the seller, in selling the horses, took the risk of being able to get his money.

The buyer is not disposed to pay the note, and the seller may bring suit to recover. If the matter goes to court all the circumstances of the case will be considered, and the buyer will be ordered to pay all or whatever part of the note the court thinks is just. The buyer, of course, will give every good reason why he should not pay the note as he agreed to.

Should the court decide that the buyer must pay something, he will also save how the money is to be raised: either in installments or all upon a certain date. In any case, the buyer must be allowed to keep crop enough for his family, and for seed, a certain number of horses, and some implements and furniture.

LYMPHANGITIS—SCALY LEGS

What is the cause of farcy in horses; to what extent is it contagious? I have lost a valuable mare from farcy this spring. Could you tell me what to feed to prevent such diseases?

2. I have two geldings five and seven years old. Hind legs swell between the joints, then the skin got scaly, and hair and skin came off. As soon as I noticed it I washed the affected parts with a solution of sheep dip. It does not seem to take effect. The horses have been fed oat straw, oat sheaves and oats and bran, also a little hay. Could you tell me the cause of this? Previous to my coming here, one year ago, horses with mange were kept here. Would my horses take the disease now?

Man.

OLD SCRIB.

Ans.—Farcy is a contagious disease, it is the cutaneous or skin form of glanders. But we presume the disease you refer to is a certain condition of the animal in which the legs swell, and, is generally referred to by big owners of horses, as water farcy. The disease is due to one or more of several causes. Indigestion is a cause. Heart disease, kidney diseases, and inflammation of the lymphatics, brought about by excessive feeding on highly nutritious food, and lack of exercise, are prolific causes, especially the latter. The remedy is, if caused by over feeding to feed bran mashes only, for a day, then give a physic ball composed of barbadose aloes from eight to ten drams (according to the size of the horse) powdered ginger one dram, soft soap, sufficient to combine the ingredients, roll in soft paper and give in the ordinary way. Feed bran

mashes only until the horse commences to purge, then give half his usual allowance of feed, increasing the amount as the purges ceases. Half ounce doses of nitrate of potash should be given in his drinking water three times a day for a few days. The leg should be well bathed with warm water until the inflammation subsides. The patient should be kept in a comfortable loose box until able to take outdoor exercise. It matters not what kind of feed is used; any will, if fed to excess, produce the disease. If horses are idle feed more bran mashes and less grain, and just hay enough that can be consumed in one hour, at each meal.

2. Prepare the geldings for physic as described above. Give each of them a ball of barbadose aloes. Wash the solution of creolin and soft water. A tablespoonful of creolin to each quart of water. Mange is infectious, your horses may take it from infected stables. Stables where horses affected with mange have been kept should be thoroughly disinfected before being occupied by other horses.

NERVOUS MARE

Mare goes all right in the buggy, but when hitched to the cutter becomes frightened at the snow flying off her feet; gets clean rattled and tries to get away.

B. I.

Ans.—It is highly probable you have no further trouble with her spring, as it is not probable you use a cutter any more. If she acts same next winter, all that you can do to drive her with a bit by which can control her, and by being close with her, she will probably be accustomed to the snow like other horses. There is no special treat for this case. Kindness and determination, no doubt, be successful, trouble is simply nervousness during sleighing, she is driven even by a good horseman, she will become as indifferent to snow as an average horse.

CEMENT FIREPLACE

I purpose to build (of one part cement, two-thirds sand) log three feet wide, two feet deep base, one foot thick, tapering inches, at five feet high, carry through the roof at the six inch the cement stand fire? Could improved by adding more? What size should the vent be? Would it do built with an arch no other support but the cement sand?

Ans.—Concrete made of one part cement, 2 parts sand, with No. 1 fireplace, if the sand to be properly selected. An amount of cement will not matter. The amount of material, as suggested in your letter, is more than is required to build this chimney. Four inches would be sufficient to make concrete at any part. There are many reinforced concrete chimney factory purposes from 250 to 300 high. Those chimneys on the sections are only three inches. Of course, they are reinforced with iron. When with concrete you can withstand the heat of furnaces and smelting works, it is less to say that for dwelling purposes no better chimney can be erected, and that any fire which be used in a dwelling-house would have any effect upon the concrete. For a two-storey house, the chimney should be 8 x 12 inches. A fireplace would be built with in front of any desired width, and be all right without any support, the cement, but the usual method is to lay in two iron rods, three-fourths inch in thickness across the top of the arch, having rods bent at the ends. The rods are laid in the cement about an inch from the surface, and sufficient concrete thoroughly tamped in around them. A little wire reinforcing might also be used in the concrete immediately surrounding the fireplace, which will prevent the chimney from cracking should it become overheated.

TO EARN THAT BIG SALARY, LEARN RAILROADING.

GET OUT YOUR LEAD PENCIL AND DO A LITTLE FIGURING.

Whatever your present monthly salary may be, multiply it by 12, and find your yearly income. Will it amount to \$1,699.80, the salary shown above? Do you earn one-half that amount? If not, why not?

FIREMEN AND BRAKEMEN

Earn from \$75 to \$150 per month.

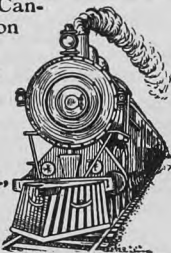
With the rapid progress of railway building in Canada it takes only from two to three years to be advanced to engineer or conductor, whose salaries are from \$90 to \$185 per month.

You can earn that money. We can start you for it.

We teach and qualify you by mail in from 8 to 14 weeks without loss of time from your present work. Positions are secured; in fact, there are many openings right now if you were qualified to fill them. Our Course is the most complete treatise on the subject of Railroading in existence. We defy any school to show a course anywhere nearly as thorough. Don't tamper with your education by buying cheap bargain courses. Ours is the only School of its kind in Canada with text-books written for use on Canadian Railways.

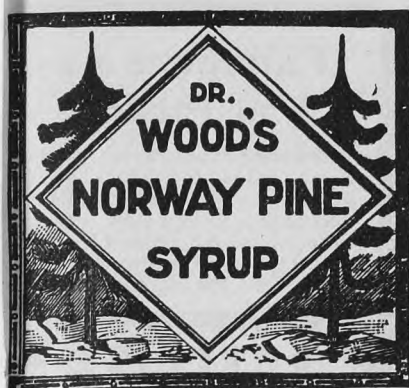
Our free booklet tells all about our system of teaching. When writing, state age, weight and height. Address:

THE DOMINION RAILWAY SCHOOL,
Dept. C
Winnipeg, Canada.



Horsemen

We can supply you with up-to-date route cards, circulars, posters, receipt books, etc. Write for samples.



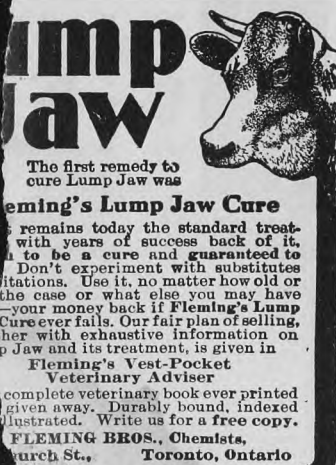
Combines the potent healing virtues of the Norway pine tree with other absorbent, expectorant and soothing medicines of recognized worth, and is absolutely harmless, prompt and safe for the cure of

COUGHS, COLDS, BRONCHITIS, HOARSENESS, CROUP, SORE THROAT, PAIN or TIGHTNESS in the CHEST,

all throat and lung troubles. It is up in a yellow wrapper, 3 pine trees trade mark and the price 25 cents.

A HARD DRY COUGH.

J. L. Purdy, Millvale, N.S., writes:—"I have been troubled with a dry cough for a long time, especially at night, but after having used Dr. Wood's Norway Pine Syrup, for a few days I find my cough has left me. To a person, suffering as I did, I can say this remedy is well worth a trial. I cannot be without it in the house."



APOPLEXY IN HENS

I had a beautiful, healthy pullet about seven months old that had been laying for the last two months. One day I came in and she was lying in the nest. In about two hours I came to see again, and she was nearly dead; her comb had turned black as coal, and she was simply useless. In a few minutes she died. What caused her death, and is the sick-ness contagious? L. M. M.

Ans.—Death in this case seems to have been due to apoplexy, probably brought about by overstraining in laying, or trying to lay an egg. There is really no treatment in such cases, which are sometimes due to overfeeding or to injury. Exercise, green food, and varied rations—fed in judicious quantity—are recommended as preventive measures.

TAPEWORMS IN POULTRY

Have a rooster which has been moping all winter. On killing him, we found worms on the outside of the intestines, and holes eaten in the crop. The worms were white, and about four inches long, pointed at both ends. Could you tell me what they are? G. H. W.

Ans.—The worms which caused the moping condition of the bird before it was killed, and which would doubtless have proved fatal, were most likely a species of tapeworm. There are several kinds of tapeworms which infest the intestines of fowls, and all, if allowed to accumulate, will eventually cause death. There is a round worm, varying in size from one-third inch to five inches in length. These worms are more common than tapeworms, but, except when massed in great numbers in the intestines, are not as fatal as the others. If worms are suspected, the diet should be limited to grain, which should be soaked in turpentine and fed to the fowls. Follow by giving two teaspoonfuls of castor oil to each bird. Or, dissolve in the warm water which is to be used in mixing the mash, two grains of santonine for each bird to be treated. Mix a small quantity of dry mash and add half a teaspoonful for each bird. Feed to the birds and note results. The droppings of the birds should be carefully collected every day and burned. Dr. Sanborn, whose treatment is the foregoing, also recommends for suspected tapeworm, six drops of oil malefern in one teaspoonful of castor oil. Give to each bird in the morning, while crop and gizzard are empty. Two to three hours after the malefern, give each bird a tablespoonful of castor oil.

SOW FAILING TO BREED

I bought a pure-bred and registered sow in December, and have bred her twice, but she fails to conceive. Would it be wise to try her again, or could you give me any advice as to how to get her started to breed? H. F.

Ans.—It is not unusual for a sow to fail to conceive to the first two matings and to breed to later services. It would be well to give her a full dose of Epsom salts to move the bowels, and then feed her laxative food, as bran and roots, and let her run out on the early grass to cool her blood, and breed her twice during a period of heat, the last time when the period is nearly ended.

LIVER COMPLAINT

Two young hens died, one early in winter and one the other day. Noticed them moping for about a week before they died. On opening, found liver spotted, and so enlarged as to almost fill abdominal cavity. Feed mixed grains, and warm mash every other day, also meat in small quantities every day. Plenty of fresh water always before them. House light and well ventilated. What would cause that diseased condition? J. S. M.

Ans.—Fowls probably died from one of several forms of liver complaint. In the latter case, where examination was made, the symptoms point to

BINDER TWINE "CRICKET" BRAND

BEST MADE IN U. S. A.

Now offered to the progressive farmers of the Great Northwest, at lower prices than ever before. We sell annually to customers located at 19,000 postoffices in the States, and have been selling direct for nearly one quarter of a century, distributing direct from factory to farm more than double the quantity of any other concern in the world.

YOUR NOTE LOOKS GOOD TO US.

To protect credit buyers from exorbitant prices, charged by discriminating retailers, we will accept notes from responsible parties, payable November 1st, at only 4 per cent added to our low cash price, which we quote for this season, F.O.B. Winnipeg as follows:—
Standard, 500 ft. "Cricket Proof" 8c
Standard Manila, 550 ft. "Cricket Proof" 8½c
Manila, 600 ft. "Cricket Proof" 9c

Let us book your order NOW subject to cancellation or additions according to crop conditions. We were the originators of the liberal crop damage proposition. Remember, we want your business, and will treat you right. Cash or note.

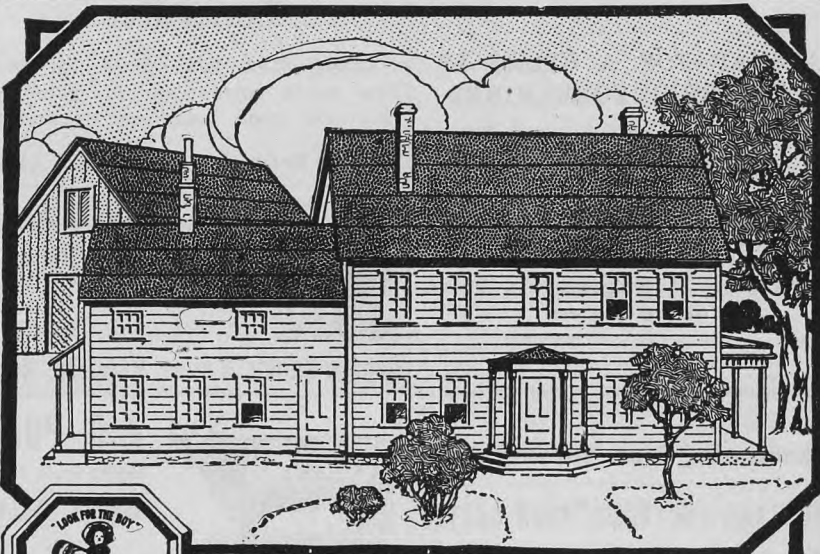
COOPER CORDAGE CO. ALEXANDER and STANLEY ST. Warehouse B., WINNIPEG.



You Want the Best Then Buy at Mirror Lake

Transportation—Four boats daily to Kaslo and Nelson.
Orchards—Young or in Bearing.
Land—Cleared or uncleared, in large or small blocks.
Soil—The Best.
Water—Abundance for all purposes flumed over the land.
Public School—in district and High School at Kaslo which is only 2½ miles distant.
No Summer Frosts at Mirror Lake. Prices Reasonable.
Raw Lands on Kootenay Lake, subdivided, with lake frontage, on actually existing roads, with good transportation, at \$10.00 per acre up.
Come, See and Be Satisfied.

K. K. Bjerkness or E. Norman, Mirror Lake, Kaslo B. C.



All Farm Buildings

should be roofed with REX—the all-round roof. It keeps the house warm in winter and cool in summer; it protects poultry from damp and extremes of temperatures; it guards stock and produce from wet; it defends buildings against the communication of fire by falling sparks and firebrands.

REX ROOFING

FLINTKOTE

is made of long-fibre wool felt treated by our special process. It contains no tar or paper. Heat will not soften it, nor cold crack it. It is laid as easily as a carpet. Everything but the hammer is in the roll.

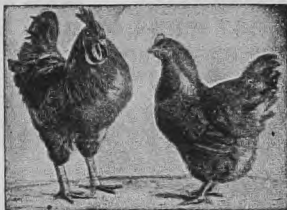
SEND FOR FREE SAMPLES

We will send upon request samples to test, and our valuable roofing booklet. "Look for the boy" on every roll. See trade mark in upper corner.

J. A. & W. BIRD & CO., 21 India St., Boston, Mass.

Canadian Office: 39 Common Street, Montreal
Agents: MACKENZIE BROS., Princess Street, Winnipeg.





Why Not Advertise?

If you have POULTRY OR EGGS for sale use the department on this page for advertising same.

Costs but 2 Cents per Word per insertion and your message enters over 20,000 homes in Western Canada. Send your copy in to-day.

Farmer's Advocate of Winnipeg.

10 Imported Scotch Shorthorn Bulls 10

Personally selected from the leading Scotch herds. They are of such noted families as Broad-hooks, Butterfly, Claret, Clara, Roan Lady and Jilt. I also have for sale four bull calves from Imp. sire and dam, and a number of good young cows and heifers. Catalogue being prepared. Write for one. Prices as well as quality will please you. Farm, a mile from Burlington Junction station, G. T. R.

FRED. BARNETT, Manager

J. F. MITCHELL, Burlington, Ont.



Glencorse Yorkshires

Stock from boar, Oak Lodge, Prior 36th, sired by Dalmeny D. C. Imp., bred by Earl of Rosebery, K. G., Scotland, also from the boar Markland Candidate 4th—Imp., in the dam, champion sow at Edinburgh, Scotland, two successive years. Stock not akin, in numbers to suit purchasers.

Glen Bros., Didsbury, Alta.



Cattle and Sheep Labels

Size	Price Doz.	50 Tags
Cattle	75c.	\$2.00
Light Cattle	60c.	\$1.50
Sheep or Hog	40c.	\$1.00

No postage or duty to pay. Cattle labels with name and address and numbers; Sheep or Hog Labels with name and numbers. Write for sample, free.

F. G. JAMES, Bowmanville, Ont.

A SNAP FOR A START IN PURE BRED YORKSHIRES

A large number of young pure bred Yorkshire hogs from prize winning stock. Ready to ship any time in May. Registered for \$7.00 each. Crated F. O. B. Napinka. This offer holds good till June 1st. We also have Shorthorns for sale.

A. D. McDONALD
Sunnyside Farm, Napinka, Man.

Bargains in Registered Yorkshire Swine

Mail us \$7.00 and we will ship you a pig and pedigree. They are bred from prize-winning stock and we are going to have a lot of them. First lot weaned and ready to ship, 1st week in April. Don't miss it. Can ship C. P. R. or G. T. P. direct.

Glendenning Bros. Harding, Man.

HIGHLAND and SHORTHORN CATTLE CLYDESDALE and HACKNEY HORSES

ALL OF THE BEST IMPORTED BLOOD

I am offering twenty-five Highland bulls and thirty females; twelve Shorthorn bulls and five females. I have selected and bred my stock with the express purpose of supplying the Ranchers. Among my Clydesdale horses are winners of many championships, including Baron's Craigie and Miss Wallace, male and female champions at the coast exhibitions.

G. L. WATSON
Highland Ranch, Cariboo Road, B.C.

\$50.00 to \$75.00

Will buy a young Shorthorn bull, from nine months to two years old, or a female of breeding age. Registered, foundation stock, from best breeds in Ontario and Manitoba. This stock has been bred with a view of combining beefing and milking qualities. Correspondence solicited. Full descriptions of stock required.

J. BOUSFIELD,
MacGregor, Manitoba

D. McEachran, F.R.C.V.S., D.V.S.
Ormsby Grange, Ormstown, P. Que.

Importer and Breeder of High-class, Pure-bred Clydesdales. Imported and Canadian bred Stallions and Mares will be personally selected to fill special orders.

Breeders in the west can have Canadian breeding mares selected and shipped on commission, saving travelling and other expenses. Correspondence invited.



To Reduce My Herd of SHORTHORNS

I am offering for sale 20 cows and heifers and a few young bulls. My prices are right.

JOHN RAMSAY, PRIDDIS, ALTA

STAR FARM SHORTHORNS

Herd now headed by Jilt Stamford. This bull won second at Dominion fair, Calgary, and first at Brandon fair 1908. Several bulls the get of my Championship bull Allister, for sale. Improved Yorkshire Pigs, all ages. Dalmeny strain. Barred Plymouth Rocks. Pairs headed by the first and second prize Cockerels at Provincial Poultry show Regina 1909. Eggs for sale.

R. W. CASWELL,

IMPORTER AND BREEDER.

Phone 375, Box 13 Saskatoon, Sask.
C.P.R., C. N. R. and G. T. P.

Yorkshires

Spring Pigs, both sexes, for sale. Few young sows ready for breeding. Also one good boar two years old.

Barker Bros., Okotoks, Alta.



Melrose Stock Farm SHORTHORNS CLYDESDALES

Sold out of sheep. Six young bulls, a few heifer calves for sale, five young stallions, from one to three year old.

George Rankin & Sons, Hamiota, Man.



J. C. POPE

Regina Stock Farm
Regina, Sask.

Breeder of
Ayrshire Cattle & Improved Yorkshire Swine.
Stock of both Sexes and all Ages for Sale.

Mr. A. I. Hickman, Court Lodge

Egerton, Kent, England, exports pedigree Live Stock of every description to all parts of the world. Exported during 1907 more Shetland Ponies, more Romney Marsh Sheep, and more champion Oxford Downs than any other breeder or exporter, besides large numbers of other breeds of horses, ponies, cattle, sheep and hogs. Correspondence invited. Highest references given.

Brampton JERSEYS CANADA'S GREATEST JERSEY HERD

Our next shipment for the West leaves here about 1st of May.

We have anything you wish in Jerseys, male or female. Orders for this shipment should be in at once.

B. H. BULL & SON, Brampton, Ont.

THOROUGHBREDS

Representative of the best blood in the Stud Book. Stud headed by Kelston, 1st Prize and Sweepstake Stallion at Winnipeg, 1905. Stallion for sale at reasonable price, correspondence solicited.

R. DALE, S. QU'APPELLE, SASK.

congestion of the liver. It does not matter much what particular form of liver complaint caused death, for all are more or less fatal. When the symptoms of liver disease are noticed, it is generally too late to hope for a cure. Liver trouble is a common disease of birds—particularly of the heavy breeds—and it is usually brought on by overfeeding of unbalanced rations; too close confinement, or insufficient exercise. As a rule, the necessity of feeding varied rations is not half understood by poultry-keepers. It is far easier to prevent liver complaint, roup, etc., than it is to cure them. At this time of the year the best treatment to give fowls is free range, if possible, where green stuff may be picked up. The rations should be well balanced and fed in judicious quantity.

WIDTH OF A PLOT

I want to sow a ten-acre plot of oats. The length is 1060 feet. How wide will it have to be to make ten acres?

SUBSCRIBER.

Ans.—410 feet 11 inches.

NASAL GLEET

I have a mare ten years old; about nine months ago she took some trouble either in the head or throat, and would discharge a white substance from the nose, but does not do it all the time. She is not as bad as she was last summer, nor does she discharge so much. She never coughed. If she is at slow work, it does not seem to bother her, but when driving on the road she will wheeze, you would almost think she had the roars; but, on stopping, she immediately stops wheezing. Could you suggest any remedy?

Sask.

A. D.

Ans.—Your mare is suffering from nasal gleet, which is a sub-acute or chronic inflammation of the mucous membrane lining the nasal chambers, and the sinuses or cavities of the head, and in which there is probably a collection of pus. It is usually the result of neglected simple cold, or exposure, such as running out to a straw stack all winter. Any injury over the face, if sufficient to fracture the bone or injure the blood vessels, may produce it. It may be the result of a carious tooth or any foreign body or growth in the nasal chambers. Treatment: Feed the animal well (feed off the ground). Use injections of alum, 2 drams, to a pint of warm water, into the nostrils two or three times a day. If it is the result of a diseased tooth, the tooth should be extracted. If the sinuses of the head are affected, the only treatment is to trephine to open them up, which can only be done by a skilled veterinarian. On account of the wheezing noise you speak of we would conclude that either the sinuses were affected, or that it was the result of a growth in the nasal chambers, which would interfere with respirations during exertion, for which surgical treatment is indicated.

MARKET OUTLOOK FOR OATS

What do you think are the chief factors causing the present high prices for oats? Is there anything in the statement that the price of oats runs in sympathy with the price of wheat, i. e., when wheat is high, oats also go high in price? Everyone seems to think that high prices will prevail for wheat for some time. Is there any good reason to suppose that there will not be a good price for oats during next fall and winter?

READER.

Ans.—The price made for oats in any year is based upon the supply of the commodity offering and the demand for it. That, primarily, creates a price for the grain, and that price further is affected by the price which other grains may be purchased for which are used in whole or part for the same purposes as oats. Thus a scarcity or high price for one cereal will influence the price of other grains. There is a good deal of truth in the statement that the price of oats rises and falls with the price

Fumigate As You Plough

The time to kill Moths, Slugs, Ants, Flies, Beetles, Lice, Midges, Caterpillars and other destructive insects—is, before they get on the Trees and Vines. Kill them in the ground. Fumigate the soil with

APTERITE

and you kill all the insects which live, or winter, in the ground.

APTERITE is a wonderful destroyer of pests and germs in the soil—and insures big crops of sound fruits and vegetables.

FREE "The Eradication of Plant Pests" sent free if you tell us your principal crops and mention this paper.

For sale by druggists and dealers generally or direct from

WM. COOPER & NEPHEWS - TORONTO

Ring-Bone

There is no case so old or bad that we will not guarantee

Fleming's

Spavin and Ringbone Paste

to remove the lameness and make horse go sound. Money refunded if fails. Easy to use and one to three days applications cure. Works just as well on Spavin and Bone Spavin. Before using or buying any kind of a remedy for a kind of a blemish, write for a free

Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages of veterinary information with special attention to the treatment of blemishes. Durable bound, indexed and illustrated. Make a right beginning for this book.

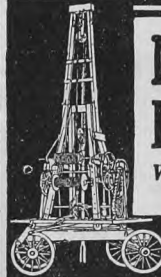
FLEMING BROS., Chemists
46 Church St., Toronto, Ont.

Shoe Boils, Capped Hock, Bursitis

are hard to cure, yet

ABSORBINE

will remove them and leave no blemish. Does not blister or remove the hair. Cures any puff or swelling. Be worked, \$2.00 per bottle, delivered. **ABSORBINE, JR.**, (mankind, For Boils, Bruises, Old Sores, Swellings, Varicose Veins, Varicosities, Allays W. F. YOUNG, P.D.F., 248 Temple St., Springfield, Mass., U.S.A. Also furnished by Martin Bole & Wynne, The National Drug & Chemical Co., Winnipeg, and Henderson Bros. Co. Ltd., Vancouver.



Make \$3 Day Pro

With a Powers' Well and Drilling Machine

Mounted on wheels it may be pulled the roughest roads by the

team that furnishes the power for drilling. One man can run it without hired help. A Nebraska owner writes:

"I have done all the work with my machine so far without help, or near. Have sometimes set machine, bored, tiled, and completed work alone."

Guaranteed to bore hard-pans, soapstone, quicksand, blue clay, etc. When you strike solid rock, the drill and finish the well.

Write For Our Free Money-Making Book

It will start you in a profitable business. The Powers' machine has no equal—it brings you the well business of your section. Strongest made, fastest borer. Guaranteed in every respect. The detailed information in our free book will start you right. Send us your name and address right now, before you forget it.

LISLE MFG. CO., Box 139, Clarinda, Iowa

Stockmen!

Let us sell your stock for you. The method is easy. Write us for rate card, send your ad. and customers will come.

Horse Owners! Use



GOMBAULT'S CAUSTIC BALSAM

A Safe Speedy and
Positive Cure

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. IMPOSSIBLE TO PRODUCE SCAR OR BLEMISH.

Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.

THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

W. H. BRYCE

ARCOLA, SASK.

Donne Lodge Clydesdale
Colts and Fillies for sale,
Perpetual Motion and
Iron of Arcola. Mares
not for service season.
and pasture. Terms \$25.00

Absolute Cure For Sheep Scab

1/2 of the woollen cloths worn in
world are made from wool
dipped in Cooper's Dip.

Cooper's Dip is used on King
Edward's famous prize-winning
hounds.

It is imported into Australia and
Argentina free of duty, because
sheep-owners know it is an
absolute necessity.

Cooper's Dip is the dip officially
sanctioned by the United States
Government.

By royal decree, every man in
growing Merino wool, must
dip his sheep in Cooper's Dip.

At the Royal Show, England, in
hundreds of sheep, every prize-
winner was dipped in Cooper's Dip.

Buy a year, enough of Cooper's Dip
to dip 250,000,000 sheep.

Read this paper and tell us how
much sheep you have, and we will
send you our book "Sheep Scab
How To Cure It," free of charge.

Cooper's Dip

Solely by druggists and dealers
generally or direct from

COOPER & NEPHEWS
TORONTO.

20

Answering advertisements
in the Farmer's Advocate.

Consumption Book

FREE

This valuable medical book tells in plain, simple language how Consumption can be cured in your own home. If you know of any one suffering from Consumption, Catarrh, Bronchitis, Asthma, or any throat or lung trouble, or are yourself afflicted, this book will help you to cure. Even if you are in the early stages of the disease and feel weak, this book will show you how to cure yourselves after all other remedies have failed, and they believe their case hopeless.

Write at once to the VonKerman Consumption Remedy Co., 1314 Rose Street, Chicago, Ill., and they will send you a free copy of the book and a generous quantity of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Don't wait—write today. It may mean the saving of your life.

of wheat. The present year is an example of this. The world had gone short on wheat, but of oats we had a larger supply than usual. In this country the oat harvest might have been taken as a likely indication of lower values, but high-priced wheat has held oats up to a fairly good level of value thus far.

Speculation as to what crops, the seed of which is still in the bins, will sell for next fall, is rather idle. To one conversant with the world's situation, it looks as if the high prices that have prevailed for wheat during the past year must be continued. The world is short in wheat, and there are no indications up to the present to indicate that the crop of 1909 will bring the reserves up to strength and supply demands from every quarter. As a matter of fact grave doubts are beginning to be entertained by those desirous of lower-priced wheat, that the crop of the present year, unless it is a bumper one, and the backward seed-time all over this continent pretty well precludes that, there is likely to be as wild a scramble for the world's first food product during the season of 1909-10 as anything seen during the present year. We see no reason why wheat should not maintain a high-price level during the coming cereal year. If you note the option quotations in our market column, you will see that wheat for next fall delivery is already selling over the dollar mark. While there may be a slump in prices, it is hardly likely to happen. We can see no reason why oats should not be a good price next fall. There is as much indication for strength in them as in wheat. At present, October delivery is quoted in Winnipeg at 38c., and in Chicago at 41c.

PUMP FOR WELL

Which is the most satisfactory pump for a well sixty feet deep, a single-action or double-action pump?

Sask.

J. J.

Ans.—A straight-lift iron pump, single cylinder will be the most satisfactory.

H. CATER,

Brandon Pump Works.

SPRINGHALT

Have a gelding eleven years old. While standing in the stable, he lifts his left hind foot from the floor, and holds it up for several minutes at a time. He does this so much that his foot must be off the floor nearly half the time. When he puts it down, he stands up on it as though it were all right. He does not limp or show any lameness in walking. He does not flinch when the leg is felt or compressed with the hands. I can not see any lump or swelling on the leg. He has been doing this ever since I bought him on March 1st last. When I first noticed the habit, I thought that probably the hoof needed trimming, as it seemed to be rather overgrown. I, therefore, had the blacksmith trim all four of his hoofs. When trimming the affected foot, I had it done so as to remove as much pressure as possible from the sole by paring the sole well down and leaving the wall of the hoof to support the weight. But this brought no improvement. The sole of the foot seemed to be sound and of good color. At some time in his early years the horse has had his right hind foot badly cut, probably with barb wire, and the blacksmith thought that perhaps the horse favored the right foot so much then that the left foot is now paying for the extra work it has had to do. I think the horse has worms. He chews the woodwork in his stall. He rubs his upper lip sometimes just as a painter would rub or slap a paint brush back and forth to get paint well into the wood. His coat is rather rough too. The horse eats well, but for a horse of his size (about 1,400 lbs.), he does not drink as much as one would expect.

Sask.

W. G. K.

Ans.—Cases such as you have described are occasionally met with in practice, where a horse has received an injury to one leg, and, as a consequence, has been allowed to stand on



Golden West Stock Farm

We are offering at present a big selection of home-bred and imported Clydesdale Stallions at very tempting prices, comprising some big drafty Stallions of different ages from prize winning stock, among them sons and grandsons of the famous "Baron's Pride." Intending purchasers will be driven out to the farm free of charge by J. Materi, Balgonie.

P. M. BREDT & SONS

EDENWOLD

Via BALGONIE, SASK.

SUFFOLK HORSES

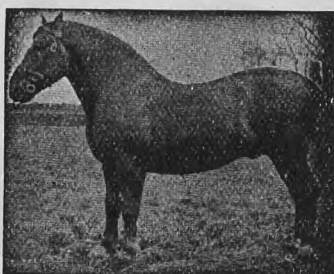
—AND—

SUFFOLK SHEEP

IMPORTED STALLIONS for sale winners at the Dominion and other fairs.

RAM AND EWE LAMBS for sale bred from imported rams and ewes. Three Championships and six firsts awarded to this flock at Dominion Exhibition, 1908

JAQUES BROS., NORTHERN STAR RANCH Ingleton P.O., Alta.



"Suffolk Punch Stallions"

Before buying a stallion see our exhibit of imported SUFFOLKS stallions at the forthcoming Calgary Spring Horse Show. Largest and best ever seen in the Dominion of Canada. Prices right. Twelve to choose from. Some imported SUFFOLK mares and half-breds will also be exhibited.

JAQUES BROS.

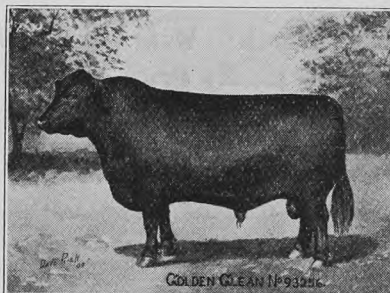
THE SUFFOLK HORSE FARM

LAMERTON P. O.

10 miles from Alix Station, Alta.

GLENCARNOCK ANGUS

Brandon, Man.



First Prize Yearling Bull at 1907 International Show, Chicago. As a two-year-old this Bull was only beaten once

ROBT. BROWN,

Herdsmen.

We have a few good
Bulls and Heifers sired
by the

CHAMPION BULL

PRINCE OF BENTON

for sale at reasonable

prices

JAS. D. McGregor,

Proprietor.

THE DISPERSION SALE



of the Forest Home Shorthorns and Clydesdales will be held at the Farm, June 2nd.

The Farm, one of the best in the province, containing 560 acres, is for sale on easy terms.

For fuller particulars see future issue. For sale catalogue write.

ANDREW GRAHAM

Pomery P. O., Man.

LAKEWOOD FARM

THE GREATEST
BREEDING ESTABLISHMENT IN
THE WORLD.



WE have on hand a large number of the choicest American-bred Percheron stallions to be found in the country. A greater part of these are sired by the world-famous Calypso, who has sired more State Fair and International prize-winners than any other stallion of the breed. We have reserved these stallions especially for the spring trade, and for the next 60 days will make prices that will move them. If you want a strictly high-class horse that has not been injured by over-feeding, and one that is already acclimated, do not fail to write us. Address

Lakewood Farm,
H. G. McMillan, Prop.

Rock Rapids, Iowa
J. B. McMillan, Mgr.

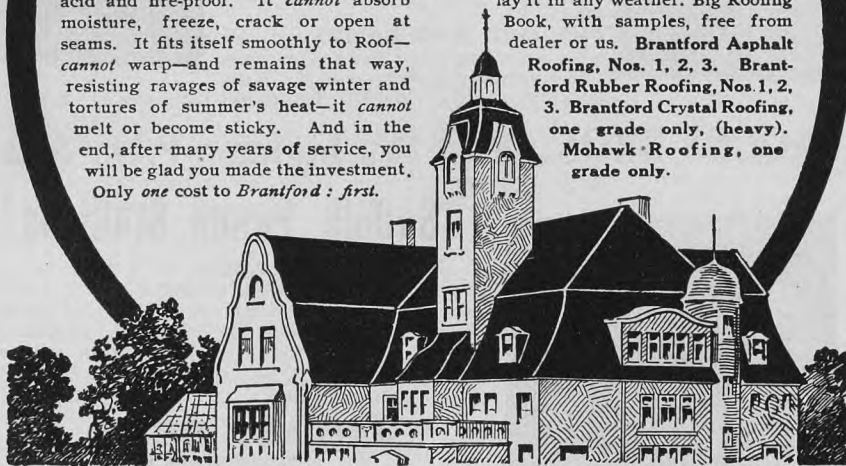
HOW LITTLE RAIN-WATER REBELS SECRETLY DESTROY MOST ROOFING

Rain-water is deadly to nearly all Roofing, except *Brantford*. It contains millions of little germs which eat away its very life, and you are not aware of this rebellion until Roofing is destroyed. Wood pulp, jute, cotton-cloth, etc., is used as a foundation in most Roofing. It is lifeless, and cannot fight for itself. The refuse-coating which does not possess one particle of resistance, is itself injurious to Roofing. Slight bending will produce numerous cracks or open seams, because it is brittle. But the foundation of *Brantford Crystal Roofing* is a long-fibred, evenly condensed sheet of pure *Wool*, which goes through special Saturatory Process, forcing Asphalt saturation through and through, and becoming as hard as flint. This saturated *Wool* now, alone, is capable of resisting the onslaught of any enemy. But to make it doubly durable *Brantford* is heavily coated with weather-resisting, fire-proof Rock Crystals, which require no painting. After going through this process no Roofing Enemy can effect it.

Brantford Roofing

is pliable, and water, frost, snow, alkali, acid and fire-proof. It cannot absorb moisture, freeze, crack or open at seams. It fits itself smoothly to Roof—cannot warp—and remains that way, resisting ravages of savage winter and tortures of summer's heat—it cannot melt or become sticky. And in the end, after many years of service, you will be glad you made the investment. Only one cost to *Brantford*: first.

It needs no repairs, and anyone can lay it in any weather. Big Roofing Book, with samples, free from dealer or us. *Brantford Asphalt Roofing, Nos. 1, 2, 3. Brantford Rubber Roofing, Nos. 1, 2, 3. Brantford Crystal Roofing, one grade only, (heavy). Mohawk Roofing, one grade only.*



BRANTFORD ROOFING, CO., Limited, BRANTFORD, CAN.

Gen. Supply Co. of Can., 147 Bannatyne Ave., Winnipeg Fleck Bros. Ltd., Imperial Bldg., Vancouver

MEN, BE STRONG

Take This Belt for What it is Worth. Wear it Until You Are Cured—Then Pay Me My Price.



Every man should understand that physical power, large muscles, strength and endurance come from animal electricity. My treatment will pump every part of the body full of that, and perfection will result.

It not only restores vigor and increases nerve power, but it cures Rheumatism, Pains in the Back and Kidneys, Indigestion and Constipation, and all troubles which result from weakness of any vital organ.

I have learned to put a lot of confidence in men, especially men who are weak, sickly and delicate, who have tried everything to restore their vitality and failed, who have lost faith in themselves and humanity in general, because they have been led to try so many remedies which were no more use than as much water. These are the men I want to wear my Belt, and I will wait for my pay until they are cured. All I ask is that they give me reasonable security while the Belt is in their possession and use. If it don't cure you it costs you nothing. Is there anything more fair?

GET SOME LIFE INTO YOU

Where there is any physical constitution to work on, my treatment will develop perfect manhood. It will take the slightest spark of manly vigor and fan it into a flame which will encompass the whole structure and charge every nerve and muscle in the body with the vigor of youth.

Dr. McLaughlin:—

Dear Sir.—My indigestion has quite disappeared and my kidneys are free from pain. I no longer feel any weakness in my spine and my appetite has returned, so that I can enjoy as good a meal as any man my size. I have gained five pounds in weight, I am also free from diarrhoea, which was severe during the summer months. I am most thankful to say that the Belt has about cured me of other weaknesses. I believe your Electric Belt is a genuine success.

Yours truly,

A. P. HICKLING, St. James, Man.

Wherever you are, I think I can give you the name of a man in your town that I have cured. Just send me your address and let me try. This is my twenty-fourth year in the business of pumping new vim into worn-out humanity, and I've got cures in nearly every town on the map. All I ask is that you secure me and pay me only when your cure is complete.

READ WITH CARE DR. McLAUGHLIN'S ELECTRIC BELT is positively the only Electric Belt offered to the public where you have a regular physician in attendance. You have his advice and consultation **FREE OF CHARGE**.

Business transacted by mail or at offices only.—No agents.

FREE TO YOU

Get my 80-page book describing my Electric Belt, with illustrations of fully-developed men and women, showing how it is applied.

If you can't call, I'll send this book, prepaid, free, if you will enclose this coupon.

Consultation free. Office hours—9 a.m. to 6 p.m. Wednesday and Saturday till 8.30 p.m.

Dr. M. D. McLaughlin

112 Yonge St., Toronto, Can.

Please send me your Book, free.

NAME

ADDRESS

the opposite limb for a long time, until the nutrition of the sound foot and leg have become seriously interfered with. When a horse has been injured to the extent that all his weight has to be borne on one leg, especially if it be a hind leg; he should be placed in a comfortable sling, or bad results may follow, such as laminitis and often drop sole. The inflammation produced in the foot and leg is liable to extend to all the structures, including the nerves. This is likely to have occurred in your horse, and accounts for the continual elevation of the foot. Inflammation of the nerve sheaths have produced a form of stringhalt, for which we cannot suggest any treatment beyond regular monthly attention to the hoof. Give him a ball composed of Barbadoes aloes, 8 drams; calomel, 1 dram; powdered ginger, 1 dram; soft soap, sufficient to combine. Roll in soft paper and give after feeding bran mash only for one day (no hay or grain). Continue to feed bran mashes only until the physic commences to operate, then give half his usual allowance of hay and oats, increasing the amount as purgation ceases. Cover the wood with sheet iron. This is a very bad habit or vice for a horse to acquire and should be prevented.

DIARRHOEA

About three weeks ago one of my horses began to scour, and now the others are affected with the same trouble. I am feeding good timothy hay and oats chopped, about four quarts. They are working most of the time, and are the same when not at work.

S. U.

Ans.—Diarrhoea is due to indigestion or to irritation of the bowels from eating moldy or musty food, impure water or watering immediately after feeding, exposure to cold, low or damp stables, or diseased conditions of the teeth. It is sometimes one of the complications of influenza. In all cases look to the feed and water. If either of these are at fault they should at once be discontinued and a change made to some easily-digested foods. Horses should always be watered before feeding and only a few swallows allowed after, to wash out their mouths. If it is the result of some irritation to the bowels, it is best got rid of by a drench of raw linseed oil, from a pint to a pint and a half, according to the size and condition of the animal. If purgation still continues, give wheat flour in the drinking water, or 2 drams of powdered opium three times a day till it ceases. Clothe the animals well, and keep in a warm but well ventilated stable. If they are those peculiar nervous horses called "washy," they should always be watered before feeding, and, if possible, allow an hour to elapse after meals before putting them to work.

MORTGAGES—NOTES

1. I wish to obtain a mortgage on my house and lot in an incorporated village. How is this done? Can necessary printed forms be purchased, or must it necessarily be done by a solicitor? Please state usual proceedings with probable cost, etc. Is it necessary to register it, and should amount be endorsed on title deeds?

2. A signs agreement, giving right-of-way across his land to B forever. If A sells his land, does agreement bind purchaser to give B right-of-way, and, also, if B sells to A, or purchasers of A's land, bound to give right-of-way to purchaser of B's land? Would this be legally binding without being registered, and would this have to be stated on title deeds?

3. C gives promissory note, but cannot meet it, and has nothing besides house and lot in incorporated village. What can D do to protect himself? Is it necessary to renew note when due, or does it hold good until paid? R. D. Manitoba.

Ans.—1. The proper procedure is to make an application for a loan to some responsible loan company. Most of the larger companies have

agencies established at county points throughout Manitoba, but there is no such agency convenient then application could be made to one of the principal loan companies in Winnipeg. The mortgage are usually attended to by the company's solicitors, and the costs deducted from the amount of the loan. It is impossible to state what amount of the costs would be, but the property in question has a Torrens title it should not cost more than \$20.00 or \$25.00. All mortgages should be registered against the land which they cover. If property is under the Torrens system, the title deeds are deposited in the Land Titles Office. If the land under the old system, the title deeds are either registered in the Land Titles Office, or the mortgagee retains possession of them until the mortgage is paid off.

2. If A has a properly executed agreement giving a right-of-way to B forever, purchasers from A will be bound by A's agreement, and B will have the right to grant his right-of-way to his purchasers. Such agreement might not be binding without registration. So much depends, however, on the way in which the agreement is drawn, and the question of the land being under the Torrens system or the old system that it is impossible to satisfactorily answer the question without knowing the exact circumstances of the case.

3. C is entitled to a house worth \$1,500, or to an equity of \$1,000, house. The only thing that C can do if C does not pay up is to cover judgment and execute remedy by way of execution and a writ of possession or other process to which he is entitled under Manitoba Statutes. A promissory note in Manitoba is good for its face from its due date.

TRADE NO

THE SUIT-CASE THAT TRAVELS 'ROUND THE WORLD

Anybody can buy the latest big hotels of every country and decorate their travelling impress people with the fact that they are great world-beat. But when you see a case, earned its decoration world-wide travel, it is so a curiosity, and it becomes interesting to trace the labels the progress of from city to city and country. This suit-case is San Francisco, bound for

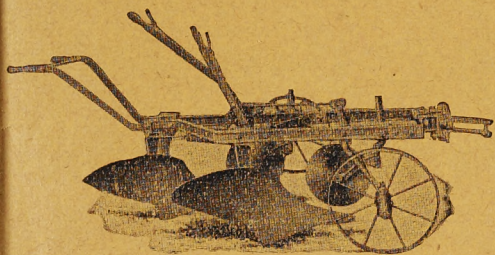
After a world-tour, every year-and-a-half, this famous now sets its face towards embarks for New York on ship Caronia, thus ending globe on its mysterious mission.

But what was its mission? were the contents of the Well, the case contained Ready Roofing, on an expedition sample the nations of the earth illustrates the great field makers have dared to attempt this wonderful roofing made dad Lake Asphalt. And the big because Genasco is a roofs in every part of the world is not affected by extremes of nature nor sudden changes, therefore, doesn't crack, burn or leak. Genasco is made Barber Asphalt Paving Philadelphia, whose more than a century's experience with Lake Asphalt, the warranty from which Genasco is a sufficient guarantee that the company's strength is in a written guarantee, and throws weight of its thirty-two million dollar organization against it.

A roofing that stands the test of world-wide weather conditions surely withstand any kind of weather we have at home, and prove a source of economy and lasting satisfaction.

MANITOBA GANG PLOW

ONE OF THE PARIS LINE



therefore correctly designed, and made of strictly first quality materials. It is a Walking Gang Plow, capacity 24 inches. You will like the simple lever movement, and the clean way the bottoms turn the soil. Your horses will like the very light draft. Our agent in your locality is waiting to show you this plow.

PARIS PLOW CO., PARIS, ONT.
Western Branch
WINNIPEG, MAN.
LIMITED

THERE'S NOT A FLAW

In a Pail or Tub made of

EDDY'S FIBREWARE

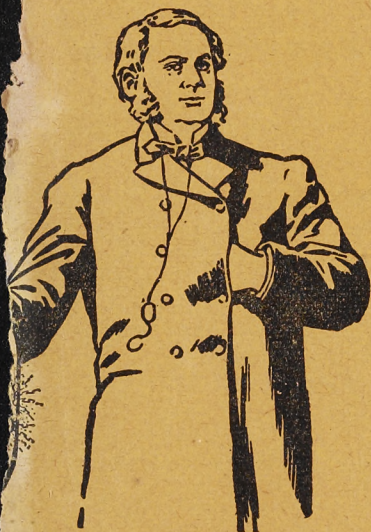
one is a Solid, Hardened, Lasting Mass without a Hoop or Seam. Positively Persist in getting EDDY'S.

Everywhere in Canada Ask For EDDY'S MATCHES.

Give It Free

To Men Until Cured.

Not One Penny in Advance or On Deposit.



I wish you could know for yourself the wonderful effect of the galvanic current on weak and nervous men. I wish you could realize the health and happiness that will be yours when this wonderful force infuses every nerve and vein of your body as accomplished through my treatment. I have been curing thousands every year for

and have proved that my method will cure any curable case. So I of my power that I am prepared to take all the risk, and will give suffering from Nervous Debility, Varicocele, Drains, Lack of Vigor, Rheumatism, Lame Back, Kidney, Liver or Stomach troubles, the world-famed Dr. Sanden Electric Belt, with Electric suspensory,

FREE UNTIL CURED

you don't pay me anything whatever. I leave you to be the judge, and the penny in advance or on deposit. I cannot do more than that to value of my treatment, so if you will call or write I will at once arrive you a Belt suited to the requirements of your case, and you can be cured. Many cases as low as \$5.00, or for cash full wholesale discount will also get the benefit of the inestimable advice my forty years' experience enables me to give my patients. This long continuous success has many imitators. Beware of them. You can try the original the world, free until cured, then pay for it. and take a Belt along, or send for one by mail. I have two of the written on Electricity and its medical uses, and containing several wonderful testimonials, which I also send free, sealed, by mail.

DR. C. F. SANDEN
Hwy Street - - - TORONTO, ONT.
Office Hours, 9 to 6; Saturdays until 9 p.m.

Trade Notes

THE ADVANTAGES OF STEEL SHOES

Three years ago a man in Racine, Wisconsin, brought out a new kind of work shoe with soles of steel. He called on the leading bankers and business men of the town, exhibited his model and outlined his plan to build a big factory. He offered them an opportunity to buy stock in the enterprise, but the men approached refused to consider the proposition seriously. They just laughed.

To-day the very men who laughed loudest are reproaching themselves for having passed up the investment opportunity of their lives.

The first time one examines a pair of steel shoes he involuntarily exclaims, "Why didn't some one think of that before!" The sole and an inch above the sole, all around the shoe, is made of one piece of light, thin, rust-resisting steel. The uppers, of water-proof leather, are riveted to the steel. A hair cushion insole adds the necessary springiness and absorbs perspiration. The bottoms are studded with adjustable steel rivets, affording a firm footing. All the wear comes on the rivets, which can be removed and instantly replaced by new ones when partly worn. These adjustable rivets prolong the life of steel shoes indefinitely and save all repair bills.

When steel shoes were first placed on the market, Mr. Ruthstein, the inventor, confined his efforts to interesting the farmers in the new kind of shoes. It didn't take long to awaken the farmers to the tremendous advantages of "steels." One pair of steel shoes will outwear three to six pairs of all-leather shoes. No sooner did the farmers learn this interesting fact than their orders began to come in a perfect flood. When Mr. Farmer found out that by wearing steel shoes he could work in mud, slush or snow without getting his feet wet or suffering from colds or rheumatism, thus saving doctor's bills and \$5 to \$10 of his shoe money in a year, he appointed himself a Committee of One to tell all his neighbors about the shoes.

Mr. Ruthstein soon began to have calls for steel shoes from all classes of workers—railroad section men, miners, street cleaners, workers in gas plants, creameries, smelters, paper mills and many other industries.

* * *

Plow, disc, harrow and pack all in one operation is what the Racine Rotary Harrow enables one to do. The implement is a simple attachment and saves hours of time besides, packing and pulverizing the land just at the right time. It is one of the best aids to thorough, judicious cultivation that has ever been put on the market. Fuller information was given in the announcement last issue.

* * *

In connection with the advertisement of Cooper's Dip, appearing from time to time in these columns, the following reports are intimating:

"It affords me great pleasure to testify to the merits of Cooper's Fluid as a disinfectant for poultry runs and pens. For some time I was troubled with nits and lice among my hens, and in consequence they were off laying considerably. I was at a loss to know how to remedy this till I tried your fluid, and I was delighted with the results. After a couple of sprayings my henhouse, nests, boxes, and the whole pens were absolutely clear of vermin of every kind, and the birds at once showed better condition and laying capacity." (Sgd.) W. H. DURHAM.

"I have used Cooper's Fluid Dip on my cattle with the best results, and can recommend it to my fellow stockmen as a vermin killer, likewise a disinfectant."

A DUDLEY ALTON.

HAD BACKACHE

Was Unable To Do Housework For Two Years

Many Women Suffer Untold Agony From Kidney Trouble.

Very often they think it is from so-called "female disease." There is less "female trouble" than they think.

Women suffer from backache, sleeplessness, nervousness, irritability and a dragging down feeling in the loins. So do men, and they do not have "female trouble."

Why, then, blame all your trouble to "female disease"?

Most of the so-called "female disorders" are no more or less than "kidney disorders," and can be easily and quickly cured by Doan's Kidney Pills.

Mrs. C. Dupuis, Bellevue Village, N.B., writes: "I was unable to do my housework for two years on account of backache. I could not get up the stairs. Doan's Kidney Pills cured me permanently after doctors failed to even relieve the pain. I can highly recommend them to all sufferers from kidney trouble."

Price 50 cts. per box or 3 boxes for \$1.25 at all dealers or mailed direct on receipt of price by The Doan Kidney Pill Co., Toronto, Ont.

TIMOTHY SEED & POTATOES

Orders received and shipped forward as ordered.

Early Ohios, per bushel.....	\$1.50
Puritans, per bushel.....	1.00
Carmans No. 1, per bushel.....	1.00

The Early Ohio is an Early Potato and when planted later is a good main cropper.

LAING BROS.,

234, 236, 238 KING ST., WINNIPEG

T. Mayne Daly, K.C.
W. Madeley Crichton

Roland W. McClure
E. A. Cohen

Daly, Crichton & McClure

Barristers and Solicitors

Office—CANADA LIFE BUILDING.
WINNIPEG MANITOBA

WHEELER & CARLE

ENGINEERS BRAZIERS MACHINISTS

Machine and Foundry Work Every Description

Brazing of Cast Iron, Wrought Iron and Steel.

WE have the following for sale: 1 new 4 h.-p. vertical engine and boiler, 1 second-hand 4 h.-p. vertical engine and boiler, on base, 1 4 h.-p. vertical engine only. Write us for full description of the above, which we guarantee will be as represented.

153 Lombard St. Winnipeg, Man.

When answering advertisements mention the Farmer's Advocate.



THE SCENIC ROUTE

TO THE EAST

Double Track, Velvet Running Roadbed, Fast Time, Modern Equipment, Unexcelled Dining Car Service, Courteous Employees.

Cook's Mediterranean and around the World tours; Steamship Tickets, all lines, including Quebec Steamship to Bermuda and West Indies.

Ticket office, 260 Portage Avenue, Winnipeg, Man.

A. E. DUFF

General Agent.



"You can come pretty near trusting the average farmer to get the most for his money. He doesn't earn it easy; and he has to get full value.

"That's why any roofing buyer gets a strong hint here:

"My shingles cover more square feet of barn roofs all over Canada than any other kind of roofing, two to one—excepting wood shingles.

"And we are overhauling the wood shingles fast, because the farmer is learning just how much wood shingles really cost, and how little mine cost.

"Time you learned, too,—isn't it?"

G. H. Pedlar

Pedlar products include every kind of sheet metal building materials—too many items to even mention here. You can have a catalogue—estimate, prices, advice—just for the asking. We'd like especially to interest you in our Art Steel Ceilings and Side Walls—they are a revelation to many people. More than 2,000 designs. May we send you booklet and pictures of some of them?

You can rest easy nights when you Oshawa-shingle ---and save money, as well

¶ Any roof covered with Oshawa Steel Shingles (Guaranteed) is proof against lightning. Not even the best lightning rod system insulates a building so safely.

¶ That particularly matters to you, if you own barns, for during 1907, from the most accurate and complete figures it is at present possible to compile, this is what the electric blast cost the farmers of this continent:

Lightning struck 6,700 farm buildings in Canada and the United States.

Fires, caused by lightning, destroyed property valued at \$4,123,000.

Lightning killed 4,457 head of live-stock.

Lightning killed 623 human beings, and injured 889, nearly all dwellers on farms.

¶ Insurance men declare that **more than forty per cent.** of all barn fires are caused by lightning. Barns are peculiarly subject to the lightning stroke, because they contain hay and straw that constantly gives off moisture by evaporation. The moist exhalations from horses and cattle also attract the bolt.

OSHAWA Galvanized Steel SHINGLES

A new roof for nothing if they leak by 1934

¶ Yet for a cost of less than six cents a year per 100 square feet you safeguard your barns—and your house, for that matter—against lightning. That is the real cost of Oshawa Steel Shingles (Guaranteed).

¶ More than that: When you Oshawa-shingle any building you have a roof that is absolutely wet-proof; absolutely wind-tight; absolutely fire-proof; and that is **GUARANTEED** to be a **good** roof for twenty-five years without painting, patching, repairing, or bother or fuss of any kind.

¶ Anybody who never saw steel shingles before can lay an Oshawa-shingle roof perfectly with no tools but a hammer and tinners' shears, and a guide but the simple, easily-followed directions that come with the shingles.

¶ Anybody who has a building worth roofing right can afford the Oshawa roofing that will roof it right—and the only roofing that is guaranteed.

¶ That is the story in brief: Send for the free book that tells it at length and proves every statement as it goes along. With the book comes a sample shingle, to show you what we mean by saying that the Oshawa Steel Shingles (Guaranteed) are made of 28-gauge heavy sheet steel, heavily galvanized on both sides and all edges, and fitted with the Pedlar four-way lock that makes the whole roof one seamless, unbroken sheet of tough steel—a roof that is not only guaranteed for twenty-five years, but good for a century.

¶ Get the book, and learn about "Roofing Right." Send for it now—to our nearest place. Ask for Roofing Right Booklet No. 5. Address our nearest place.

The PEDLAR PEOPLE of OSHAWA

ESTABLISHED
1861

ADDRESS OUR NEAREST WAREHOUSE:

MONTREAL OTTAWA TORONTO LONDON CHATHAM WINNIPEG VANCOUVER QUEBEC ST. JOHN, N.B. HALIFAX
321-3 Craig St. W. 423 Sussex St. 11 Colborne St. 86 King St. 200 King St. W. 76 Lombard St. 821 Powell 127 Rue du Pont 42-46 Prince William St. 16 Prince

WE WANT AGENTS IN SOME SECTIONS. WRITE FOR DETAILS. MENTION THIS PAPER.